

THE NATIONAL WOOL GROWER

VOL. V.

OCTOBER, 1915

NUMBER 10

Wool Growing In Australia

"CROSSBREEDING"

By R. H. HARROWELL

I HAVE previously dealt with this subject in the columns of the National Wool Grower, but it presents so many aspects that it can stand frequent reference.

There are very few hard and fast rules that can be laid down in regard to the crossbreeding branch of sheep raising, but if one were to bring to a focus all the experiments that have been made in Australia and New Zealand, a few recognized principles would stand out.

When I refer to experiments I do not necessarily mean those conducted

which must always be the home of the pure Merino, but it is unquestionably a fact that crossbreds are now penetrating districts where a few years ago it was thought they would come to grief.

On the other hand there are plenty of examples where cross breeding has been, and is carried on in big commercial lines and it is instances such as these that provide the real object lessons.

I suppose one of the first questions a new chum at sheepfarming would ask himself on acquiring land would be "shall I breed pure Merinos or Crossbreds?" As a matter of fact an experienced sheep farmer would know

which must always be the home of the pure Merino, but it is unquestionably a fact that crossbreds are now penetrating districts where a few years ago it was thought they would come to grief.

The question therefore is how can one distinguish Merino country from Crossbred country?—and this is a question I would not like to answer as an impeachably authority. Dealing with it on broad lines, one could say that sparsely watered country covered only with natural herbage, and by reason of soil and climate unsuited to



A GROUP OF CROSSBRED RAMS

by Government officials at experimental farms, which are all right in a way, but to the work of practical sheep-owners who have made crossbreeding a commercial proposition.

Official experiments, often very thorough, are generally enshrouded by so much detail that their educational advantages are either reduced or obscured. Then again they are conducted in such tit bits that they lack anything of a comprehensive nature, and the thoughtful observer feels compelled to make allowances for any difference in results that may have appear-

ed had the experiments been made in a different district, or under different conditions.

The main advantage that crossbreds possess over pure Merino flocks is that they yield quicker returns, and consequently yield more per acre than the Merino. This, however, only applies to districts suited to the crossbred, and this is a point that every sheep-farmer has to solve for himself.

In Australia for instance, judged by experience up to date, there are areas

agriculture, would be more suited for Merino than for crossbreds. The Merino is a hardy sheep—and while carcass is of no small importance, this breed yields its chief revenue from its fleece. Now the most valuable Merino fleeces, and the highest quality wool are, in Australia at any rate, produced on the light carrying county where sheep have to roam about for their feed and where the feed is not too rich or luxuriant. It is a well known fact that when Merino sheep are brought on to rich feed such as lucerne, or English grasses, the wool at once deteriorates.

It loses its brightness, its elasticity and its freedom from superfluous grease. The good shafty high yielding Merino wool is produced on the light carrying country, covered with fine but nutritious grass, or herbage. Now if the Merino is brought on to cultivated pastures the wool deteriorates and the usefulness is diminished and, compared with the crossbred it has not much to offer in the way of carcase or early maturing characteristics to compensate for the falling off in wool returns.

Therefore it should be accepted as an axiom that all sheep country is not Merino country, and, inversely, all sheep country is not suited to crossbreds.

There are, however, large areas of good grazing land which can be worked in conjunction with agriculture and on such lands the crossbred offers the best returns for capital invested.

The three great advantages the crossbred offers over the Merino are: First, greater lambing percentages; second, earlier maturity; third greater fattening propensities. Therefore in selecting country for crossbreeding it should be seen that it possesses facilities for encouraging and developing these advantages rather than retarding them as purely Merino country would.

A very important point to be grasped is what crossbreeding really is. It is not by any means uncommon to hear a halfbred called a crossbred—which is not correct and is misleading. The basis of all good crossbreeding is the Merino ewe—but this does not necessarily mean that every Merino ewe is suited to the purpose. As I have just pointed out fecundity, and early maturing characteristics are two of the most prominent advantages, crossbreds possess over Merinos, therefore in selecting the ewe for the purpose, great attention should be paid to type.

The small framed wrinkly Merino ewe is notoriously a poor breeder. She returns a very low percentage of lambs and she rears them with difficulty on account of her poor milking qualities. Obviously then the big framed plain-bodied Merino ewe is the right kind

for mating with rams of British breeds. Although carcase is of primary importance in crossbreeding the wool item must not be overlooked, and in selecting Merino ewes some attention should be paid to the fleece. The mating of extremes is always productive of more or less unsatisfactory results, and the Merino and any of the British longwool breeds are opposed enough in type without accentuating it. Therefore as the rams carrying a long bold class of wool, the ewes should be as near as possible of that type—possessing long fairly open fleeces, characteristics which more often than not go with the plain-bodied big framed Merino ewe.

I do not know whether in the United States the Shropshire has been used much for mating with the Merino ewe, but that policy has proved an utter failure in this country. Generally speaking for fairly rough conditions the Romney and Border Leicester are proving the most suitable breeds for mating with the Merino while in favored localities the Lincoln is doing well also the English Leicester. In Victoria the English Leicester is particularly successful, and I do not think I could conclude this article better than by quoting the comments of a well known Victorian breeder who has made a great success of working the English Leicester with the Merino. He always uses pure sires and to this attributes a large proportion of his success, and when he gets two generations removed from one breed he returns to the other by means of pure rams of that particular breed. To quote his own words.

"The second cross with Merino rams I could not follow any further, as the sheep get too small. Our country will not grow Merino sheep of any size, and the more we worked our crossbreds towards the Merino, the smaller the sheep got. In breeding crossbreds you never want to use the Merino or the Leicester ram more than twice in succession. The way I am working now, and it is the simplest, is, when your ewes begin to get too fine, put them with a pure English Leices-

ter ram and when you find them getting too coarse, put them to the Merino ram, but never go more than the two crosses either way. Always use the longest staple Merino ram you can get, and the Leicester rams should have a good, full fleece of typical wool, not long, ropy curly stuff. A number of breeders think that short, dense wooled Merino rams are the best to mate with Longwool ewes. This is the greatest mistake in creation, and one that so many keep on making. Get your Merino ram as large as you can, with a good long staple of good bold wool. It does not matter if it is a little open. The contrast between a fine short, dense wooled Merino ram and a Leicester ewe is too great.

CONDITIONS IN CENTRAL IDAHO

The range is drying up very fast and water is scarce, but in some sections there is a large amount of dry feed on the ground. If we get a good fall rain, we will have an immense amount of winter feed. All our tail-end lambs have been sold, feeders paying from \$3.50 to \$4.25 per head. Our old ewes are also selling fast for ranch breeding at from \$5.00 to \$5.50 per head. I believe we are fast drifting to the system now practiced in Scotland where the cull ewes are sold from the hill stocks of sheep to the farmer in the arable portions, who raise one crop of lambs, then fatten the ewes and dispose of them as fat stuff, buying a fresh supply every fall. This system would work to great advantage in this country, providing the range growers with a market for his old ewes, and giving the farmer with his pasture and hay, a means of using the same.

No new men are starting in the business on the range and several of the older growers are disposing of their sheep. There will, however, be about the same number of ewes wintered as formerly.

HUGH SPROAT, Idaho.

Sheep Feeding A Sphere For Women

By J. E. POOLE, Chicago, Ill.

LOIS McFADDEN is unquestionably America's foremost feminine sheep feeder. She is the daughter of W. M. McFadden, Secretary of the American Poland-China Record, and has for several years been a contender for grand championship honors in the carlot sheep contest at the International. She made her first appearance in that competition in 1911, securing a blue ribbon on a load of native yearlings. In 1912 she exhibited a load of native lambs that won third prize, and a load of Idahos of the Ormsby breeding that were considered as good as the grand champions. In 1913 she showed a load of the Wood lambs, Idaho-bred, that were in better condition than the grand champions, but in competition with purebreds lost on the score of quality. The McFadden feed lots are located at Flossmoor, a suburb of Chicago, and the entire show flock is in charge of Miss McFadden.

"Some day Miss McFadden will win the grand championship at the International," said A. J. Knollin the other day. "She will achieve that distinction when she secures the right material. Heretofore she has been handicapped by feeding grade lambs bought on the open market, but I am going to furnish her with a load of purebreds that will be eligible to first honors. She would have had them this year, but for the fact that Jess. Andrews of Indiana was unable to show his last year and is entitled to another try this season."

Several years ago Miss McFadden secured a load of sheep that had been grazed through the summer in Washington Park, Chicago, fed them for the International and secured a blue ribbon. Since then she has been a persistent contender for sweepstake honors, but while able to compete so far as condition is concerned has been handicapped by quality, being invariably relegated to second place by a load of purebreds. She is an ardent advocate of sheep husbandry as a

sphere of activity and profit for the women who live on farms. On this subject she said: "The preparation of a load of sheep or lambs either for show or market purposes involves little labor that the average woman is not capable of and that little may be satisfactorily done by some one who has no interest in or liking for sheep. A handy arrangement for watering, and to have the feed and bedding placed where one can easily get at it, are all that are required. I have always considered it absolutely essential to do the actual work of feeding

voted to the work. It is true that several trips were usually made to the feed lot during the day, but these were largely on account of the pleasure derived from noting the contentment and improvement of the flock, although some detail of care generally had attention. Experience with animals of my feeding sold on the open market has been limited to what might be termed the culls of the show loads of former years, and those fed for the 1914 International. This has plainly shown that market-toppers can readily be produced with the proper start and good care. More important than this, however, it demonstrates that should conditions make it necessary no great amount of help would be required and that not of the experienced kind, to conduct much larger feeding operations that would be not only pleasant but interesting and profitable. Temperamentally the average woman is fitted for this task, and after one has become acquainted with a bunch of sheep they actually enjoy her presence in the feed lot or pasture. Frequent feeding and watering, gentle talk and the necessary stroke of the hand are all commendable and work wonders."

It is Miss McFadden's contention that the average farmer is not endowed by nature or experience for successfully handling a small flock. As a farm chore attending the wants of a band of ewes or a load of sheep in the fattening stage is distasteful to most men. It is the little things that count with sheep, and attention to detail is not a masculine trait. Cleanliness above all things is necessary, in successfully handling sheep, and acquiring familiarity with one's charges is equally essential. Compared with dairying the work involved is less laborious and exacting and decidedly more pleasant while results are satisfactory. The McFadden feed lots and pastures are full of sheep most of the year and in addition to feed raised on the farm large quantities of salvage grain are consumed.



MISS LOIS McFADDEN, SHEEP FEEDER.

myself, as in no other way can the quantity and kind of feed be so well determined. This also enables one to know that the water and feed troughs are perfectly clean, the hay fresh and the feed in proper condition.

"In the feeding of sheep for the International I have cared for about 200 animals at a time during each of the past three years. Caring for this number required no great amount of work, or so it seemed to me. From an hour to an hour and a half in the morning and an hour in the evening were de-

FEDERAL GOVERNMENT TO DESTROY WILD ANIMALS

Woolgrowers will recall that through the efforts of the National Wool Growers' Association the Federal Government last year made a large appropriation for the purpose of destroying predatory wild animals within the Forest Reserve and on the public domain. This money, while appropriated last March, did not become available for use until July first of this year. The money is to be expended under the direction of the United States Biological Survey. That department has now about completed arrangements for starting the campaign in western states. Under the appropriation available, the department believes that it can put to work in western states about 130 hunters and it has divided the West up into nine districts and placed a chief inspector in charge of each district and has put under his direction from twelve to twenty hunters who started work about ten days ago and who will continue until the 30th of June, next year.

The districts are as follows:

Oregon and Washington in charge of E. F. Averill, Pendleton, Oregon; Texas in charge of C. R. Landon, San Angelo, Texas; California and Nevada in charge of E. R. Sans, Reno, Nevada; Arizona and New Mexico in charge of J. S. Ligon, Magdalena, New Mexico; Colorado in charge of L. B. Crawford, Denver, Colorado; Wyoming in charge of Chas. Bayer, Lander, Wyoming; Idaho in charge of Chas. B. French, headquarters not selected; Montana in charge of R. E. Bateman, Billings, Montana; Utah, Mr. Holeman, Provo. Twenty hunters will be employed in Oregon and Washington; 15 in Texas; 15 in California and Nevada; 15 in Arizona and New Mexico; 12 in Colorado; 15 in Wyoming; 12 in Utah; 12 in Idaho; and 12 in Montana, making a total of 128 hunters employed.

These hunters will be under the direction of the chief inspectors as previously named and will be located in different parts of their respective terri-

tory, being moved from time to time from one point to another so that during the year the entire state may be covered by them. The hunter is to receive \$75.00 per month in addition to equipment. All pelts that are obtained become the property of the Federal Government, and bounty is not to be collected upon them. These hunters will work in co-operation with the various livestock associations, and the inspectors in charge desire that stockmen and others report to him depredations committed by predatory wild animals. The department is particularly anxious to have reports of the presence of wolves in the various districts.

The National Wool Growers' Association has assured the Biological Survey that these hunters will have the hearty and united co-operation of western sheepmen. We have also advised the Biological Survey that wherever possible these hunters will be cared for by the sheepmen without charging them for their board and lodging, and that further, where it is possible that sheepmen will see that they are transported from one portion of the country to the other. We have also advised the department that these hunters will need a great deal of bait and that woolgrowers will be very glad to furnish them free of charge with such old sheep or old horses as they may have in their possession. Our thought in making these promises is that every western woolgrower is vitally interested in encouraging the destruction of predatory wild animals, and since the benefit of their destruction comes to the stockmen, the stockmen are certainly under obligations to the people who destroy these wild animals to furnish them every accommodation possible. In making these promises the National Wool Growers' Association appreciates that this is the first year for a National bounty law, and that unless success is achieved by this law that we will probably never again have a Federal Bounty. In order, therefore, to promote as far as possible the continuance of this appropriation, we feel doubly certain that every western woolgrower will accom-

modate these hunters and make their business as remunerative as possible during the time that they are among us, so they will continue at work.

The officers of the National Wool Growers' Association intend to declare the months of December and January as poison months and to organize a vigorous campaign against predatory wild animals. If sheepmen give us their hearty support in this effort together with the work that may be accomplished by the Government hunters, we believe that the next twelve months will place the predatory wild animal where he will be decidedly less destructive to western stock interests. Under these circumstances and in view of the fact that this work is being done for western stockmen, the National Wool Growers' Association will be greatly disappointed to learn that any woolgrower has refused to extend to these Government hunters every possible accommodation and every possible co-operation.

FEEDING RAMS.

"Yes, we always feed our breeding rams during the breeding season and for two weeks before that time," said J. N. Burgess of the Cunningham Sheep and Land Company of Oregon. Further he said: "We are satisfied that by keeping the ram in good shape we get more and better lambs. We aim to start feeding two weeks before the rams go in. When the season opens we put the rams in at night when the ewes come in from the range and take them out again next morning. When the rams come out, we feed them about one pound of barley and all the hay they want. After this is eaten, they are put in the corral until afternoon, when they are turned in a pasture to graze. We have handled our rams this way for years and are satisfied with the results."

We would not be surprised if Congress placed a tariff on wool this winter. Revenue is needed, and this is the most satisfactory way to obtain it.

Deferred and Rotation Grazing

HAYDEN FOREST, WYOMING.

By L. H. DOUGLAS, U. S. Forest Service.

THE Hayden National Forest, in Wyoming, includes the summer range most easily accessible from the winter range of the Red Desert of Wyoming and other vast areas of winter range. The winter ranges have supported a greater number of sheep than the summer range on the forest would support, and as a result the summer range was badly overgrazed prior to the creation of the forest. Further, because of the desert-like character of the winter and spring range, it is necessary to open the summer range at the earliest possible date.

Water becomes scarce and the feed becomes dry and harsh early in the spring, so that, usually, the sheep have to be allowed on the forest for the lambing period. This excessive demand for summer range and for an early grazing season has made it difficult to bring about the desired improvement in the range of the Hayden Forest. The congested condition has been somewhat relieved by a reduction in the number of stock permitted on the forest, by putting into practice the individual allotment system, and by establishing regular driveways. Reduction in numbers, however, had to be limited to the number deemed absolutely necessary if the sheepman's interests were to be considered and, as a consequence, there was, and is still, the greatest need for the most improved methods of range management.

Experiments begun on summer sheep ranges of Northern Oregon, in 1907, *showed that depleted range recovered more rapidly when the range was protected against grazing until the

important forage plants had matured their seeds and then grazed, than when protected against grazing yearlong, the difference being due apparently to the fact that sheep grazing after seed maturity aided in planting the seed of important forage plants and the removal of the forage after growth had practically ceased for the season did not injure the existing plants.

While the experiments in Oregon were conducted under conditions of soil, climate and vegetation different from those on the Hayden Forest in Wyoming, it was early believed that

grazing based upon these facts it was decided to try them out in a demonstration experiment on the Hayden Forest.

Range Typical of the Experimental Area.

The area selected for the test is at an altitude of approximately 8,000 feet and is typical of a large area of sheep range on the western slope of the Sierra Madre Mountains, characterized by large park areas interspersed throughout areas of young aspen and young lodgepole pine forests. Some forage is found in the timber, especial-

ly in the aspen, but the large intervening park areas, or areas sparsely timbered, are the most valuable from a grazing standpoint. Originally the park areas were typically grass lands with a minor proportion of more or less valuable weeds, but due to continued overgrazing the most valuable species of both grasses and weeds were largely replaced by worthless weeds. Upon careful examination during the grazing season of 1910, however, it was found that there were still enough live plants



General view of range near the experimental area on the Hayden Forest. Part of the 19 acre experimental area in foreground. Photographed August, 1913.

the fundamental facts, (1) that revegetation can be accomplished more quickly if the range is grazed after seed maturity than if allowed total protection against grazing, and (2) that continued removal of the herbage before seed maturity year after year results in weakening the vegetation and in gradually depleting the range, developed by the Oregon experiments would apply equally well to the summer sheep ranges of Wyoming. This was problematic, however, and before attempting to put into effect a new system of

of perennial grasses to reseed the area if they could be given a chance to recover vigor and produce seed. Perhaps 40 per cent of the sparse stand of vegetation consisted of good forage grasses such as Nevada bluegrass (*Poa nevadensis*), slender wheat grass (*Agropyron tenerum*), and needlegrass (*Stipa lettermanii*), and weeds suitable for forage, mainly yarrow (*Achillea lanulosa*). The remaining 60 per cent

*A. W. Sampson, "Natural Revegetation of Range Lands Based upon Growth Requirements and Life History of the Vegetation," Journal Agricultural Research, Vol. III, 2, 1914.

was made up of weeds of little or no value for grazing.

Plan of Experiment.

In June, 1911, shortly after the beginning of the growing season, an area of 20 acres typical of the west slope range described, was selected for the experiment and fenced. In one corner an area of one acre was fenced off from the main tract, the object being to determine the rapidity of range recovery under total protection against grazing in the one acre area, the rapidity of recovery when grazed by sheep each year after seed maturity in the 19 acre area, and the rate of recovery under the customary season-long grazing on the unfenced range adjoining the fenced areas. All areas had been subject to the same grazing conditions prior to construction of the fence in June, 1911, and the forage apparently was uniform as to density and species over all.

On August 28, the first season, 1911, after the forage plants had fully matured their seeds, a band of 2500 ewes and lambs were turned into the 19 acre pasture in the afternoon and held there until the next morning and then removed; this area was again grazed by a band of ewes and lambs after seed maturity in 1912. The one acre tract was not grazed either in 1911 or 1912. The adjoining outside range was grazed moderately each year from about May 10 until September 15.

Forest officers at the beginning of the third season, 1913, reported that apparently there was three times as much forage on the 19 acre area, which had been protected until after seed maturity and then grazed in 1911 and 1912, as on the adjoining outside range; and that apparently the forage on the 19 acre area was better, both in amount and quality, than on the totally protected one acre area. To make sure of this, and to secure a more accurate comparative record of the amount and species of forage on the three areas, representative plots were selected and charted in August, 1913, and the data thus obtained were supplemented by general examination of the three areas, by germination tests of seed collected from each area, and by measurements of fol-

iage and flower stocks to determine in general the comparative vigor of the vegetation on the three areas.

Comparative Amount of Vegetation.

The actual measure, by charting and counting the number of plants and by measuring the tufts, showed that the 19 acre area, grazed after seed maturity in 1911 and 1912, had 100 per cent more vegetation per unit area than the outside range which had been moderately grazed May 10 to September 15 each year, and 20 per cent more vegetation than the one acre area which had not been grazed at all from June, 1911, to August, 1913. Assuming that the unfenced area made no improvement after June, 1911, it may be concluded that the total vegetation on the 19 acre area increased 100 per cent and that the vegetation on the totally protected plot increased 60 per cent from June, 1911, to August, 1913, three growing seasons. This conclusion is believed to be conservative for the reason that the unfenced range was not grazed as heavily during this period as it had been prior to 1911, and here as elsewhere on the Hayden Forest there was undoubtedly a slight increase in the amount of vegetation.

The comparative amount of vegetation which stock will graze is, no doubt, a better measure than total vegetation of the comparative value of the forage crop on the three areas. The vegetation on the range, 19 acres, protected until after seed maturity each year and then grazed was made up of 80 per cent palatable species and 20 per cent worthless weeds; the vegetation on the area not grazed at all, one acre plot, consisted of 70 per cent palatable species and 30 per cent of worthless weeds; and the vegetation on the adjoining range which had been grazed moderately each season from May 10 to September 15, consisted of 40 per cent palatable species and 60 per cent of worthless weeds. Further, 99.2 per cent of the palatable vegetation, or actual forage, on the 19 acre area consisted of good forage plants, primarily perennial grasses, while on the range grazed season long only 55 per cent was made up of good forage plants, 65

per cent of plants classed as medium forage value, and 38.5 per cent of plants classed as distinctly inferior in forage value. On the area not grazed at all, one acre plot, 35.3 per cent of the total vegetation was classed as good forage, 64.4 per cent as medium forage value, and less than 1 per cent of inferior forage value. The comparison is decidedly in favor of fall grazing after seed maturity.

Comparative Vigor of Plants.

It may naturally be considered that the grazing of a plant during its growing season, when plant food is being manufactured and stored, will reduce vigor. Such reduction in vigor is manifested in the number and size of seed stalks, the number and length of leaves, the amount of seed produced and its germination power.

Measurements of many specimens of the same species showed that the seed stalks on plants from the totally protected area were approximately one-fourth longer than those of the same species on the area grazed after seed maturity and from two to four times as long as those of the same species on the adjoining range grazed season long. The difference in number and size of leaf blades was in favor of the totally protected area but was less pronounced than the difference in length of seed stalks. At the time of the examination, in August, 1913, seeds of three important grasses were collected for comparative germination tests. The germination per cents were as follows:

	1 acre plot not grazed 1911-12-13.	19 acre plot grazed after seed maturity only.	Range grazed May 10 to Sept. 15 each year.
Brome Grass (<i>Bromus</i> <i>marginatus</i>)	P. C.	P. C.	P. C.
	52.3	59.3	36.3
Needle Grass (<i>Stipa</i> <i>lettermanii</i>)	1.3	2.0	0.7
Wheat Grass (<i>Agropyron</i> <i>tenerum</i>)	59.3	44.3	23.7

The comparative seed crop and the comparative viability of the seed show the comparative vigor of the plants better, perhaps, than it can be shown in any other way, provided, of course, the plants from which seeds are taken have developed under the same growing conditions so far as soil and climatic conditions are concerned, which was true in the above tests.

The foregoing tests substantiate facts brought out by tests elsewhere that there is little difference between the vigor of the plants after the second or third year of grazing after seed maturity only, and the vigor of the same species not grazed at all, but that there is a marked difference in the vigor of plants protected against grazing until after seed maturity, or totally protected against grazing, and the vigor of the same species, when grazed year after year during the growing season. This fact cannot be emphasized too strongly as it is becoming noticeable on ranges, considered properly stocked, where certain camps are grazed year after year before seed maturity. In such cases, on sheep range, the plants which sheep like best, and consequently graze first each year, are gradually being weakened and are giving way in favor of plants which, while valuable as forage, are eaten as second choice and, therefore, have a better opportunity than the first choice plants of fulfilling their natural requirements of growth. That there is as much total vegetation, or even as much vegetation which stock will eat, this year as there was last year or five years ago does not mean that there has not been a change in the mutton producing value of the area. In the final analysis of range management and the final plans, this point will be one of first importance.

Palatability of the Forage After Seed Maturity.

It is often held that the forage on areas where grazing has been deferred until after the plants have matured seeds will become dry and tough and, therefore, can not be used to advantage. On National Forest ranges heavy frosts usually come at about the time

of seed maturity and as a consequence the succulent forage at best consists of the limited fall growth of perennial plants, primarily grasses. This being the case, it is believed that there is an advantage in having an area of untouched forage for this later period after heavy frosts set in. In the Hayden experiment careful observations showed that after the sheep had picked out the small amount of tender, weed foliage remaining when the 19 acre area was grazed after seed maturity, they ate the foliage and at least a portion of the ripened grain of the matured grasses, apparently with relish. The

Conclusions.

The essential conclusions from the experiment may be stated as follows:

1. On the 19 acre area protected until after seed maturity and then grazed each season for three seasons the total vegetation increased 100 per cent, while the total vegetation on a similar, adjacent area not grazed at all during the three years increased 80 per cent.
2. At the end of the three year period 80 per cent of the total vegetation on the area grazed after seed maturity each year was palatable to sheep and of this 80 per cent 99 per cent was good



Hayden experimental area: One acre plot not grazed during 1911-12-13, inside fence to right; 19 acre area, grazed after seed maturity in 1911 and 1912, inside of fence to left; range grazed moderately May 10 to September 15, each year in foreground. Photographed August, 1913.

lambs may not hold their round, plump condition as well as where they have more succulent feed in abundance, but they harden on the dry forage and the grain in the native grasses and as a consequence are in the best condition for the drive to market or for the winter range. A light fall growth of green grass not infrequently is insufficient in amount for the sheep and results in their chasing about over the range and actually losing flesh. Unless there is enough green grass to satisfy them they will do better on the substantial air-cured forage and the grain they get from the native grasses.

forage; on the totally protected area 70 per cent of the total vegetation was palatable to sheep and of this 70 per cent 35.3 per cent was good forage and 64.4 per cent of medium forage value; on the range grazed from May 10 to September 15 each year 40 per cent of the total vegetation was of value as forage of which 55 per cent was good forage and 38.5 per cent distinctly inferior quality.

3. The vigor of the plants was perhaps slightly greater on the totally protected area than on the area grazed after seed maturity each year, and the vigor of the plants on the range grazed

throughout the season each year was decidedly less than on either the protected range or the range grazed after seed maturity.

4. Range recovery was practically complete as a result of protection until after seed maturity of the important forage plants and then grazing each season for a period of three years.

5. The forage after seed maturity was readily eaten by the sheep.

6. The results of the test were essentially the same as the results of the more intensive natural reseeding studies in Northern Oregon.

Application to Range Management.

It is obvious from the foregoing results and conclusions that any general plan for bringing about the recovery of overgrazed ranges and for producing the greatest number of stock on the range available should provide for fall grazing after seed maturity rather than for total protection against grazing so far as the deferred grazing is practicable. Not only will recovery be more rapid by deferred grazing but there will be little or no loss of forage any year.

Approximately one-fifth to one-fourth of the grazing season remains after the majority of the forage plants have matured their seeds. On the Hayden Forest and all other Forests of Wyoming and Northern Colorado, the period is about one-fourth except on allotments used for lambing. On Forests of Southern Colorado approximately one-third of the grazing season remains after seed maturity. In order to bring about the recovery of an overgrazed allotment it should be divided into 5, 4 or 3 parts, depending on whether one-fifth, one-fourth or one-third of the grazing season remains after seed maturity. The division should be so made that the most severely overgrazed portion of the allotment will, if possible, be included in one division. This division should be protected the first year until the plants have matured seeds and it should then be heavily grazed, in order to aid in distributing and planting the seed. The second

year on the same division the treatment should be the same, except the fall grazing should be moderate instead of heavy because of possible injury to young plants as a result of heavy grazing. If necessary for recovery, the same treatment should be given a third season. After recovery is satisfactory on the first division, the plan should be put into effect on each of the 5, 4, or 3 divisions of the allotment in turn.

Such a plan should be followed on all fully stocked or overstocked forests to bring about recovery of overgrazed allotments, and on all forests to keep the range as a whole in a condition of maximum forage production.

Occasionally only a portion of a forest, such as a grazing district, is fully stocked. Or, it may be that only one allotment in a district is overgrazed, and that rapid recovery is especially desirable. In such cases it might be possible to have the plan of deferred grazing based upon 5, 4 or 3 allotments instead of parts of the same allotment, thereby allowing the entire overgrazed allotment to be protected until after seed maturity and then grazed by the 5, 4 or 3 bands of sheep. Where the stock can thus be shifted the protection is simple, as allotment boundaries are distinct and the entire overgrazed allotment can be revegetated in perhaps three years.

While protection until after seed maturity should be aimed at the value of a month, or even a week, of unmolested growth on mountain ranges should not be lost sight of. Where the growing season is short, as it is on the majority of summer ranges, the forage plants grow rapidly and two weeks' delay in the time of grazing, while it may not result in a crop of seed being matured, will aid in maintaining the vigor of the existing plants. Where there are two, three or four camps, all adapted to approximately the same season of grazing the order of grazing should not be the same each season, but should be changed from year to year so that each part of the range will have, in its turn, the advantage of unmolested growth for the longest per-

iod possible consistent with the use of the range. If range use consistent with the requirements of the vegetation cannot be worked out, the vegetation dies and we have the worthless weeds or dust-bed, ordinarily attributed to over-stocking, but due in many cases not to too many stock but to lack of a little planning in the time of grazing so as to give the vegetation on each part of the range a chance to grow.

CONFERENCE ON MARKETING LIVE STOCK

In order to discuss the subject of marketing live stock and meats United States Secretary of Agriculture, Houston, is arranging to call a conference of those interested in the live stock industry in Chicago sometime in November. The Secretary recognizes the instability of market prices for live stock and believes that a discussion of this subject may result in bringing about reforms that will be of benefit not only to the producer but to the consumer also. The National Wool Growers' Association has been invited to send a delegate to that conference and will do so.

SMALL LOSS FROM COYOTES.

In discussing the coyote question, Thomas Austin of Salt Lake City recently said: "The coyote campaign started by the National Wool Growers' Association last winter was one of the best moves ever made by the Association. It resulted in thousands of coyotes being killed that would not otherwise have been touched. In our part of Idaho we payed a special bounty on coyotes and wolves which got several hundred of them. As a result of this campaign we have lost fewer sheep from coyotes this summer than for many years. I think the Association should take up the work again this winter and if all will work together, we can settle the coyote for several years to come."

Every sheepman can afford to pay this Association \$5.00.

"Natural Revegetation of Range Lands Basedup on Growth Requirements and Life History of the Vegetation," Journal of Agricultural Research, Vol. III, No. 2, 1914.

PUTTING THE FARMER INTO SHEEP

The state of Oklahoma has never been noted as a sheep raising state, but now the bankers of that state are engaged in a campaign to induce their farmers to purchase from 50 to 100 head of breeding ewes. In connection with this campaign, George L. Browning, president of the Southwest Reserve bank of Oklahoma City has written a long circular letter which was sent to the farmers of Oklahoma. In attempting to show the farmer what a wonderful profit he can make from 50 ewes, Mr. Browning, a banker, states as follows:

as this that have driven the sheep off the American farm. Irresponsible parties have repeatedly advised the farmer that sheep handling was all profit and they have assured him that 50 ewes would entail no labor, eat no feed and return anywhere from 100 to 500 per cent net profit. The gullible farmer assuming that those who advised him knew where of they spoke has repeatedly purchased sheep only to find after a few years labor that the sheep require feed; that they require care and attention; that some of them die; that wool and lambs did not bring as much as they were supposed to bring; and that in the end the profits from sheep husbandry were just reasonable

This banker figures that 50 ewes will yield \$125.00 worth of wool or \$2.50 from each ewe. Last year the sheep of Oklahoma averaged 5.9 pounds of wool, which sold at an average price of 20 cents per pound. Thus the income from each ewe would be \$1.18 instead of \$2.50 as given by the banker, or a total of \$59.00 for the 50 ewes. Of course wool would be higher this year, but this is solely on account of the war, which we cannot expect to last always. From 50 ewes the banker tells the farmer that he will obtain 75 lambs, which will net him \$7.60 per head. Lambs are higher this year than ever before, and yet the Oklahoma farmer has no reason to expect that



A FLOCK OF YEARLING HAMPSHIRE EWES SOLD BY WALNUT HALL FARMS, DONERAIL, KENTUCKY

Wool from 50 ewes sold in spring	\$ 125.00
Seventy-five lambs	570.00
Old stock of sheep	400.00
Total income	\$1,095.00
Less original cost of ewes.....	400.00
Net profit for first year	\$ 695.00
Nearly 150 per cent.	

We are greatly astonished that any man connected with a National Reserve Bank would publish such an absurd, misleading statement as this. We cannot conceive of any school boy in any country school district but what will see the fallacy and total unreliability of the figures that Mr. Browning here gives. It is just such statements

profits, the same as they had a right to expect when they handled other kind of livestock. Had the farmer gone into the sheep business with the understanding that he was to have a reasonable profit, he no doubt would have been satisfied with it and would have continued in the business, but when he found that he had been misled, bungled as it were, he immediately desired to sell his sheep. This is just the reason why the American farmer has been getting into sheep and out of sheep for the last quarter of a century, and this is the reason why he will continue to do so until he is induced to enter the sheep business with a clear understanding of the profits that he may expect therefrom.

his lambs will net him over \$5.00 per head. Instead of having 75 lambs from 50 ewes, he will be doing very well indeed if he averages 50 lambs from 50 ewes, giving him a total income from lambs of \$250.00. Thus the gross income from 50 ewes will be about \$310.00 instead of \$695.00 as given by the banker.

Now the banker tells the farmer that he will have left all his old sheep worth \$400.00. The average loss of sheep on the farm ranges between 5 and 8 per cent, so that if his loss is 6 per cent it will amount to 3 ewes, which he states cost \$7.50 each or a total loss of \$22.50. Now the farmer will certainly have to pay interest on his investment which at 8 per cent

amounts to \$32.00. These two items represent money that he will actually have to pay out. If his gross income is \$309.00 less \$54.00, the loss and interest, he would have left \$255.00 to pay the taxes on the sheep, the expenses of shearing, to pay for the feed and the pasture of the sheep as well as the depreciation in the value of his ewes. How much of the \$255.00 would be left if these items are deducted, we shall not attempt to say, but it seems clear that instead of the farmer having a net profit of \$695.00 from 50 ewes as the banker predicts, he will have done exceptionally well if he has a net profit of even \$150.00.

We do not publish this statement with the thought that it will discourage farmers in the sheep business for such is not our purpose, but on the other hand we believe that the farmer has a right to at least fairly intelligent advice on the subject, especially since he is paying for it and since he is the one that will be the loser if it does not pan out.

GRAZING INSPECTOR VISITS PORTLAND

Mr. Will C. Barnes, assistant forester in charge of the branch of grazing of the forest service, Washington, D. C., is visiting Portland this week, on a tour of inspection of the grazing areas in the national forests of the West.

"My inspection work," remarked Mr. Barnes during an interview, "has taken me generally over the ranges of the eleven grazing states of the West, and everywhere I find conditions excellent. The stockmen all appear to be well pleased with the outlook. A few years ago, when the plans and policies of the service were not well known or understood by the stockmen, there was considerable criticism and fault-finding on their part; but at present I think it safe to say that 95 per cent of the western stockmen using national forest range would seriously object to having the range thrown open to indiscriminate use as in the years before the forest service undertook the range management."

"Has there been any decrease in the amount of range?" he was asked.

"Yes, there has been, but still the receipts from the grazing business show no reduction, while the number of livestock shows a slight increase," was the reply. "This, too, is in spite of the fact that large eliminations are constantly being made from forests of land which the forester has decided cannot be classified as strictly forest land, but which would make excellent grazing land. We consider this due to the improved conditions and careful management of the range. The carrying capacity of existing range has been much increased in this way, until now many ranges are carrying far more stock than they did ten years ago. This is especially true of the sheep industry on the national forests, because the method of handling sheep enables us to put in force more readily any new ideas toward better management. Sheep, you know, are under a herder's care, while cattle are not."

"One of the newest phases of our work," continued Mr. Barnes, "is the result of the action of the last Congress, in that it authorized the forest service to take over the management of two large areas of open range land in New Mexico and Arizona which have been handled for the past few years, by the Bureau of Plant Industry. This bureau handled the lands from a purely technical standpoint. The action of Congress in turning these areas over to the forest service is something of a departure from established procedure, inasmuch as it authorizes the forest service to carry on certain investigations on non-forest lands. One of these areas covers about 50,000 acres, and the other about 300,000 acres. The latter is the New Mexico area, and lies near the town of Los Cruces, a short distance above El Paso in the Rio Grande Valley. We have about 5,000 head of cattle on this area, turned over to us for experimental purposes, the owner furnishing the labor and necessary improvements, and agreeing to carry out the plans of the men in charge of the work. Our

experiments will be very practical, their object being to determine many points at present but vaguely understood by open range stockmen. Among these are the number of acres per head required for handling cattle on such areas; the best time at which to graze certain grasses; the percentage of calves which, in normal years, should be secured in a large herd of this kind; the best age at which to sell surplus cattle; and the use of additional feed, such as cottonseed cake, to keep the cattle growing at all times of the year."

CONDITIONS IN MONTANA.

We have had rain, every week since May throughout this state, perhaps more in the mountain region than on the prairies, but the country has had sufficient to bring about abundant crops, so much so that the grain crop will be double what it usually is, averaging sixty bushels or more on oats, and thirty-five to forty on wheat throughout the state to the acre.

The range is good throughout the state, but hay, on account of the rain, will not be so good, but sufficient for taking care of stock should we have a hard winter.

There have been many sheep sold during the year, and many more still for sale. The Sun River Stock & Land Company have now on hand about 3,000 yearling ewes, 5,000 two-year-old ewes, 2,500 threes and fours and 5,000 five and six-year-old breeding ewes. About half of these will be for sale.

Sincerely believe that the wool business of this year was carried on for the seller, more so than ever before during the last forty years of my experience, this for the reason that the wool grower was advised what his wool would be worth, to hold it for a price. This brought about a condition that wool is now held in strong hands, and believe those that have not sold will obtain reasonable price for their wool.

T. C. POWER, Montana.

Get us a new subscriber.

The English Wool Situation

"AMERICAN BUYING INFLUENCES CROSSBREDS"

Bradford, Sept. 18, 1915.

THE past month has been disappointing when viewed from many standpoints, the distinct backward movement in the price of tops in particular being indicative of a somewhat changed attitude on the part of buyers. At the same time nothing serious has happened because the decline has represented a good deal of the surplus profits which the trade has been accustomed to during recent months. That is really the crux of the whole situation. It is not a question of an actual loss having to be faced, although a few speculators will have been caught. Still tops are being produced at a distinctly less price than what are ruling values today. When we can buy wool in London which in the top costs sensibly under 72 cents per pound, and tops of the same quality are being sold at say 78 cents, there can be nothing wrong with such a market, and that is really what is seen today. As we write this the sixth series of London sales are in progress, prices moving very much as was generally expected. Even the partial decline which has taken place in no sense puts beyond possibility of selling of that wool when combed at a profit, but unfortunately the majority will have to wait many months before the wool bought today in Coleman Street reaches the combs, and that is where the rub comes in. The month has been the quietest we have witnessed since September, 1914, there being throughout the trade a slowing down, in fact less actual business has been done than we have seen for many months. No doubt many spinners and manufacturers have bought heavily on forward account, in fact many firms

have covered all prospective requirements for this year, and they consider it policy on their part to hold their hand rather than commit themselves more heavily.

Mills Busy.

It is in order to say that mills are still busy, and the outlook for trade remains good. The pressure on account of khaki contracts has subsided considerably, and all the journalistic news about further big orders being likely, can be dispensed with as solely the product of those wanting to make copy. The Government has repeatedly told West Riding manufacturers for the past three months that their de-

probability will be the ordering of heavy overcoating. Many members of the trade have overlooked the fact that soldiers' clothes today are lasting longer than at the beginning of the war, and when whole, though dirty, they are being washed and made fit for wearing again. What we are most surprised with is the large orders which have gone across the Atlantic on behalf of our Allies, and while this has been cause for dissatisfaction in some quarters, it should help to unite the two English speaking countries, and call forth the sympathy and help of our American friends. The point to observe is that practically all West Rid-

ing mills are well able to do without any further khaki orders, being kept busy enough on ordinary civilian trade. A big variety of cloths is now being produced, and notwithstanding the very high values which are still ruling for tops and yarns, the majority of firms are able to keep their plants running, and will do for some time to come. There is an endless variety of stuff being made at the present time and those firms producing blue worsted serges, gabardines, rainproofs and tweeds are as busy as they can be. The firms produc-

ing dress goods appear to be a little concerned regarding the fugitiveness of many shades of dye, but this no doubt is on account of the inferiority of the dye wares which are being supplied. However, standard shades are being dyed reliably, and that is something to be thankful for.

Export Licenses.

A matter which has agitated the West Riding trade during the past month has been the question of export. Many feel that the time has now arrived when the Government can allow



A NEW ZEALAND LINCOLN TO BE SEEN AT THE PANAMA-PACIFIC SHOW

mand for khaki serge will be less in future than during past months and that stocks are very heavy. In harmony with this they have wisely determined to reduce those further large quantities as ordered. If what we hear from reliable sources is correct, then no one need expect any important orders for the ordinary tunic serge for some time to come. During the month both our own Government and the Allies have ordered considerable weights of shirtings, blankets, and other fabrics, and the next move in all

reasonable weights of crossbred wools to go to our Allies and the United States, and although the Government has made no official announcement, they have caused it to be understood that the War Trade Department is prepared to consider favorably applications for the export of crossbred wools to "safe destinations." There is a certain indefiniteness about the statement which is troubling many, but all things considered, it is as good as can be reasonably expected. We hardly think the Government intends to hoodwink the trade, although we admit that a more definite statement would have set the minds of many at ease. No doubt the Government is waiting to see the effect upon the trade, and whether prices will move in an upward direction. No one has the least desire to see the home trade impoverished, but that is hardly likely in face of a whole New Zealand and English clip, which our home manufacturers are having to tackle. The Government deciding that all future orders for tunic serge shall be made from a worsted warp and woollen weft means that less fleece wool will be wanted, and we are convinced that a considerable quantity could be allowed for export without impoverishing the home trade.

An Interesting Comparison of Values.

The present is a very favorable opportunity for seeing where values stand compared with the corresponding date a year ago. We select the middle of September, 1914, because it was at that particular time when the influence of the war began to make itself beneficially felt. The first six weeks after the outbreak of hostilities was a very quiet time, with values declining sharply, the whole trade not knowing how things were going to turn. It is quite true that tops have fallen anywhere from 4d to 6d per pound from the highest point, and by consulting the under-mentioned particulars, readers will see the influence of the war on tops:

Description.	Sep. 10, July 1, Sep. 9, 1914. 1915. 1915.		
	d.	d.	d.
70's Colonial tops, aver....	29½	45-45½	40
64's Colonial tops, aver....	28	44½-45	39
60's Colonial tops, super....	27½	43½	38
60's Colonial tops, ordl....	26	42	38

58's Colonial tops, aver....	24½	39	33
56's Colonial tops, aver....	23	36	32½
50's Colonial tops, aver....	19½	33	28½
48's Colonial tops, aver....	17½	30	26½
46's Colonial tops, prep....	17½	29½-30	26½
46's Colonial tops, carded...	16½	29	25½
40's Colonial tops, prep....	15½	27	23½
40's Colonial tops, carded...	15½	26	23
36's Colonial tops, prep....	15½	25½	23

London Sales.

The event of the early days of September was the opening of the sixth series of wool sales in Coleman Street. The initial results were quite as good as anyone could expect, the announcement of the War Trade Department being prepared to consider applications for the export of crossbred wool leading to a better sale than at one time looked likely. The series opened with the best demand for all good wools, prices showing no decline for these. Shafy Merinos are still wanted by the home trade, but all faulty wools which must be carbonized showed weakness, and the fall is bound to be in evidence, possibly more pronounced, as the auctions proceed. Everybody today wants wool as free from shiv and burr as possible, and especially wools of good combing length. American influence was distinctly in evidence in regard to crossbreds, and all well conditioned wools appreciated about 1 cent. Even the more wasty wools showed a steadiness which was distinctly wanting at the close of last series. Owing to there being no new khaki orders on the market, slipped crossbreds sharply declined, the loss being 3 cents to 4 cents. Russia is again in the market for good Merino scoureds and evidently is prepared to pay long figures. No doubt the congestion among home users is still in evidence, and nobody wants to put good money into the raw material which they cannot see being used for many months to come, especially faulty wools for carbonizing. A new season will shortly open in Australia, no doubt the largest importing topmakers have recently shaped a program with lower prices in view, but from all accounts America and Japan are certain to be larger buyers in the Colonies during the coming season than the last, and we do not expect to see much change for good Merino and crossbred wool on today's values.

Recovery in Crossbreds.

The outstanding feature of the sales so far has been the recovery in crossbreds. At the close of the July series their sale was distinctly disappointing when viewed from a New Zealand grower's standpoint, in fact, there was often 4 cents difference between the last week and the first, and the recovery is directly the result of the Government announcing its intention to grant licenses for the export of reasonable weights to Allies and America. Had this intention not been declared, we are certain that crossbreds would have shown a further fall of at least 2 cents per pound, but the privilege to export has caused 1 to 2 cents recovery, and today 36 cents is being freely paid for good desirable parcels. The most pronounced advance is seen in good medium crossbreds, and the improvement is the most pronounced in the better lots. Skirty, heavy, wasty wools did not show any quotable improvement, but are selling relatively better.

The sharp decline in slipped crossbreds is to be regretted, but no one need express any surprise. These wools have sold for months above their real value by pence per pound, and today the majority are 4 cents per pound under last sales' closing rates. This is due entirely to a lack of Government orders, and if none are given out, we may easily see the decline accentuated before the finish, unless America comes in and buys. There is just that possibility and we have thought there were signs of a few good lots going in that direction.

Position of English Wools.

The announcement that the Government is prepared to grant licenses for the export of a certain amount of English wools has naturally had a stimulating effect upon the trade, but no licenses have so far been actually granted, although they will be. The Bristol Fair was to a large extent a failure, and the month has been very quiet time for all English fleeces. We need some American orders to galvanize the domestic trade into a better state of activity. The clip has been

bought very dearly, and unless some outside support is forthcoming staplers will be faced with rather serious losses. However, there is general confidence that licenses will be forthcoming for allowing reasonable quantities to be exported. Prices for everything are slightly in buyers' favor, and particularly domestic fleece and skin wools. Perhaps Down classes are the firmest, but all deep wools are on the easy side. The Government announced early this month its intention to allow $4\frac{1}{2}$ million pounds extra of blackface to be shipped to your side, consequently these wools are firmer at 22 cents to 23 cents in Glasgow. The whole trade needs further khaki orders to impart more vim, but they do not seem to be on the horizon.

FOR THE NATIONAL WOOL GROWERS' ASSOCIATION

Enclosed please find check for \$25.00 covering dues and donation to the National Wool Growers' Association for 1915.

The Association is doing mighty good work for the sheep industry, and the National Wool Grower is more than a credit. I personally not only feel that both are entitled to the hearty support of every woolgrower, but deeply regret that untoward circumstances have prevented me from taking any active part in the good work this past year.

ROBERT TALYOR, Nebraska.

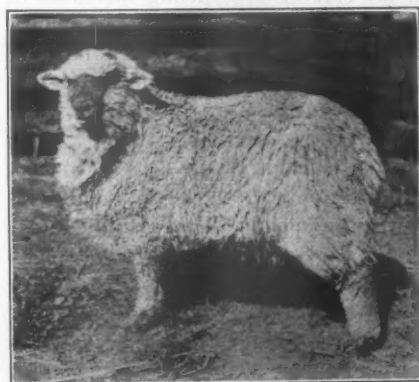
GOOD ARIZONA YEAR.

Mr. Colin Campbell of Flagstaff, Arizona, recently visited Utah where he purchased 60 head of Rambouillet stud rams. He reports sheep conditions better in his state than for many years. Most of Arizona lambs have sold at around \$5.00 per head on the range. Arizona wool was sent East on consignment and much of it remains unsold. Mr. Campbell comes from a state where the Tunis and Persian sheep have been used for crossing on range ewes. He feels that such crosses serve no useful purpose and can be dispens-

ed with. He is of the opinion that the sheepmen are facing a great scarcity of ewes in the next few years, and he thinks the shortage will be as much felt in Arizona as in Idaho.

PACKERS MAKING MONEY ON LAMBS' WOOL

Recently we sheared a half blood Shropshire lamb that was five and one-half months old, and it yielded $4\frac{1}{2}$ pounds of very light wool. The lamb had been dipped twice, hence the shrinkage of the wool was very light. However, in order to determine exactly the shrinkage, we scoured a portion of the fleece and found it shrinking 35 per cent. This lamb's wool would grade about a high quarter blood and is worth in the Boston market at least



5 1/2 MONTHS OLD HALF-BRED SHROPSHIRE LAMB, SHEARED 4 1/2 POUNDS OF WOOL.

62 cents per pound scoured. Therefore, it is worth in the grease just 40 cents per pound. Four and one-half pounds at 40 cents makes this lamb's fleece yield the packer \$1.80. We sheared this lamb with hand shears, and no doubt there was a pound of wool left on the lamb, which the packer would get, had the wool been pulled so we are of the opinion that this particular lamb yielded enough wool to bring the packer fully \$2.00.

On this page we publish a photograph of this particular lamb. It is our intention to shear other lambs from time to time so as to keep in close touch with the amount of wool that each one yields.

Officers of National Wool Growers' Association

F. J. HAGENBARTH, President
Spencer, Idaho.

A. J. KNOLLIN, Eastern Vice-President
Chicago, Ill.

M. I. POWERS, Western Vice-Pres.
Flagstaff, Arizona.

F. D. MIRACLE, Treasurer
Helena, Mont.

S. W. McCLURE, Secretary
Salt Lake City, Utah.

Executive Committee

ARIZONA.

Hugh Campbell, Flagstaff.

CALIFORNIA.

F. A. Ellenwood, Red Bluff.

COLORADO.

L. E. Thompson, Las Animas.

IDAHO.

Nathan Ricks, Rexburg.

ILLINOIS.

W. C. Coffey, Urbana.

IOWA.

V. G. Warner, Bloomfield.

KENTUCKY.

W. T. Chilton, Campbellsburg.

MICHIGAN.

A. A. Wood, Saline.

MONTANA.

E. O. Selway, Dillon.

NEBRASKA.

Robert Taylor, Abbott.

NEVADA.

A. E. Kimball, Elko.

NEW MEXICO.

H. C. Abbott, Mount Dora.

OHIO.

S. M. Cleaver, Delaware.

OREGON.

J. N. Burgess, Pendleton.

SOUTH DAKOTA.

F. R. Cock, Pierre.

TEXAS.

B. L. Crouch, San Antonio.

UTAH.

Thomas Austin, Salt Lake City.

VERMONT.

E. N. Bissell, E. Shoreham.

WASHINGTON.

F. M. Rothrock, Spokane.

WEST VIRGINIA.

S. C. Gist, Wellsburg.

WISCONSIN.

Arthur Stericker, Manitowoc.

WYOMING.

Joseph Kinney, Cokeville.

THE AUSTRALIAN WOOL YEAR

Dalgety & Company's annual review of Australia and New Zealand wool production contains many interesting facts. They estimate the wool production for the last two years as follows:

For twelve months ending June 30, 1915, 794,736,337 pounds; for twelve months ending June 30, 1914, 849,828,667 pounds.

The quantity of wool sold in the Australasian markets during the past year amounted to 1,544,799 bales or 72 per cent of the total exported.

The average weight per bale is given as well as the average price per bale of all the wool sold in the Australasian markets. We have reduced the "average price per bale" as shown to "cents per pound" for convenience:

	Weight per bale	Avg. Price per pound.
1915	329.1	18.9c
1914	327.2	19.7c
1913	321.2	20.6c
1912	331.2	17.3c
1911	332.1	18.3c
1910	335.5	19.7c
Average for 14 years		18.6c

The Australian wool year ends June 30th, and at that time values were higher than had been the case since 1872 although the average price, obtained for the year was less than the previous year. It will be recalled, however, that for some few months after the declaration of war Australasian markets were badly demoralized and wool sold at very low levels.

The average weight of wool produced per head of sheep and lambs shorn and the average revenue per head has been as follows:

	Lbs.	Oz.	Value per head
1915	7	7 1-3	\$1.41
1914	7	12	1.53
1913	7		1.44
1912	7	7	1.28
1911	7	4	1.33

There has been a decided change in marketing outlets—of wool sold in primary markets the distribution was as follows:

	1915 Per Cent	1914 Per Cent
Continent	9	65
United States	15	6
Great Britain	64	22
Japan	6	3
Local Manufacturers	6	4

The proportion of crossbred wool produced in Australasia during the past year has been about 34.3 per cent as against 65.7 per cent Merino wool, whereas in the previous year it was 31 per cent crossbred and 69 per cent Merino and in 1910-11 26 per cent crossbred and 74 per cent Merino.

LIVESTOCK FARMING.

Grain farming reduces the fertility of the soil. Stock farming increases it. Grain farming reduces the humus in the soil. Stock raising increases it. Grain farming spoils the mechanical condition of the soil. Stock farming improves it. Grain farming fosters weeds, plant diseases and insects while stock raising decreases them. Stock raising develops thrift—pay as you go. Grain farming develops the credit system. Grain farming brings on the mortgage. Stock raising pays it off. The labor for grain farming is expensive while that for stock farming is cheaper in that it is engaged by the year. Grain raising is dependent on the season. Stock farming is quite independent of the season. Taking care of stock is splendid training for the boys and girls. People with the instinct for stock raising are and have been the dominant people of the world. Grain farming is a soil robber; hence it is only possible on a new soil and then only for a short time.

The aim of every farmer should be to gradually work into some phase of livestock farming. This results in rotation of crops and a home market for the grain and hay. In this way, as much grain can be grown on the farm as though it were all given to grain, as the yield will be larger due to increased soil fertility, fewer weeds, less plant disease, better mechanical condition of the soil, etc.

The only permanent agriculture is

that which is based on livestock farming and permanent agriculture means profitable agriculture.

C. W. HICMAN,
Idaho Experiment Station.

COYOTES ABOUT GONE.

We have fewer coyotes in Oregon now than for very many years. In fact in some sections they have disappeared. Two things account for this: first, the presence of rabies and next a three dollar bounty. Rabies has existed among our coyotes in Eastern Oregon for about five years, but it only spread rapidly during the past year. Now we have it in every part of Eastern Oregon. It has killed thousands of coyotes and is still killing what few remain. Mad coyotes have caused immense damage to stockmen, both large and small. Thousands of cattle, horses, hogs and a few sheep have been bitten either by coyotes or dogs that had been bitten by mad coyotes. Naturally a few people have been bitten but these have been saved by being treated with some kind of vaccine. The Oregon legislature recognized the danger of this plague and raised the bounty on coyotes to \$3.00. This put hunters to work everywhere and in addition to the old coyotes that were killed, thousands of pups have been dug out of dens. It looks now as if Oregon would not be bothered with coyotes for some years to come.

F. H. HALL, Oregon.

GOOD RAMS SOLD.

Kinney and Peterson, Cokeville, Wyoming, recently received from Robson and Sons of Canada a carload of registered Lincoln and Cotswold rams. These were a very high class lot of rams and will give a good account of themselves. They have all been sold, 20 head going to Geo. Beckstead, Provo, Utah; 10 head to Henry Staly, Evanston, Wyoming; 10 head to Antone Hanson, Evanston, Wyoming, and 35 head to Geo. Stratton, Rawlins, Wyoming.

SEPTEMBER SHEEP MARKET.

In more than one respect September live mutton trade was pyrotechnical. Feeder grades sold at prices that would have been considered high for fat stock in former years. Scarcity forecasts were made good. Omaha had a heavier run than last year, due to Chicago's disease embargo, but even there fat stuff was not available in large quantities, the run being freighted with feeders. Chicago paid the penalty of disease. That market received only 802 carloads of range sheep and lambs during the month against 1864 last year, and 2477 two years ago. How Chicago has suffered by the embargo on feeders is indicated by the fact that July, August and September delivered only 1941 carloads of western sheep and lambs at that market against 3,391 last year and 4034 in 1913. As supply of natives was woefully deficient, killers had hard picking and bear raids were fruitless.

During September many western lambs netted \$5.00@6.00 per head to the shipper. Indulging in reminiscence western breeders recalled periods when \$2.00 was a net return that did not arouse serious protest. At no spot during the month did the Chicago top drop below \$8.50 and that was reached only when packers indulged in concerted raids. Most of the western lambs were cashed at \$8.65@9.15 with natives largely at \$8.25@8.85. Sorting was lax most of the time, consequently prices were actually higher than paper prices indicate. Cull lambs sold at \$7.25@8.00, if westerns, and \$6.75@7.50, if natives. Matured wethers sold largely at \$5.85@6.25 and fat ewes at \$5.25@5.75, with most of the fat yearling stock at \$6.50@7.00.

Chicago receipts were 300,000 head less than in September, 1914, and 472,000 less than during the corresponding month of 1914. While general scarcity was in evidence, the deficiency at Chicago was wholly abnormal and due to the fact that no feeders could leave that market. As a result Omaha practically doubled its volume of feeder trade. That scarcity actually exists is

demonstrated by a shortage of about 1,700,000 at the six principal western markets during the first nine months of the current year.

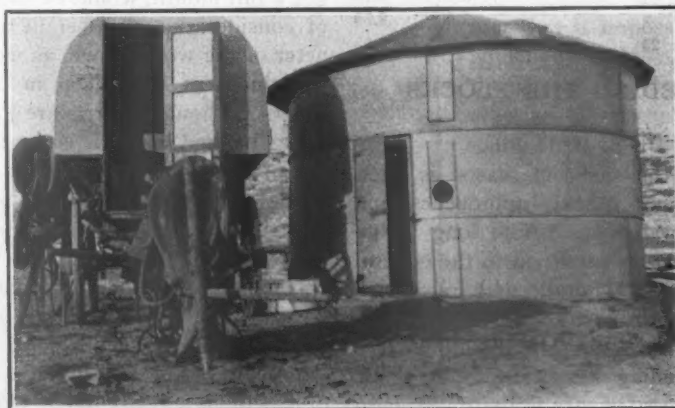
Many new price records were hung up during the month and averages were high. Fat lambs averaged \$8.80 per cwt or \$1.05 above the former September record made in 1914. Sheep and yearlings averaged \$5.75 per cwt., a new September record by 45 cents. But hoof values were by no means inflated when lofty prices for skins and pulled wool were taken into consideration. The strength of the market was due mainly to urgent eastern demand on killer account at Chicago and the biggest feeder business the trade had ever known at Omaha.

Among the new tops hung up for fu-

The fact that the usual September break was not registered is worth notice. This was not the fault of the buyer as concerted action to force lower prices was taken at frequent intervals. Scarcity of natives was one saving influence and the fact that a large share of the western crop was marketed in July and August.

CHICAGO SHEEP PRICES.

Week ending—	Bulk of Sheep
September 4	\$5.25@6.25
September 11	5.25@6.00
September 18	5.25@5.65
September 25	5.35@6.35
September 30	5.50@6.00
	Bulk of Lambs
September 4	\$8.50@9.40
September 11	8.35@9.00
September 18	8.00@8.75
September 25	8.25@8.90
September 30	8.50@9.20



GRAIN TANK, ON RED DESERT, WYOMING, OWNED BY S. B. CURTIS

ture September markets to shoot at were \$9.25 on native and Idaho lambs; \$9.10 on Nevada lambs; and \$9.00 on Utah, Washington, Wyoming and Montana lambs. The \$9.00 mark is unprecedented in the case of Montana product, but lambs from that state never showed up as well bred or in as good condition before. Montana yearlings reached \$7.60 and native yearlings \$7.25. Matured wethers from New Mexico sold up to \$6.50, Montanas to \$6.45, a few western sheep to \$6.75 and natives at \$6.50. Idaho ewes scored at \$6.00 and natives at \$5.85. Records made in September last year were native lambs at \$9.00, westerns at \$8.90, western sheep \$6.20 and yearlings \$7.00.

TOP PRICES.

	Sheep.	Lambs.
September 4	\$6.25	\$9.50
September 11	6.00	9.10
September 18	5.75	8.90
September 25	6.50	9.00
September 30	6.75	9.25

AVERAGE PRICES.

Week Ending—	Sheep.	Lambs.
January 2	\$5.80	\$8.50
January 9	5.80	8.50
January 16	5.55	8.30
January 23	5.75	8.30
January 30	6.00	8.50
February 6	6.30	8.90
February 13	6.50	8.45
February 20	6.75	8.50
February 27	7.25	9.15
March 6	7.50	9.65
March 13	7.60	9.55
March 20	7.50	9.65
March 27	7.50	9.50

	Sheep.	Lambs.
April 3	7.50	9.25
April 10	7.50	9.40
April 17	7.75	9.70
April 24	7.80	9.65
May 1	7.70	9.75
May 8	7.65	9.50
May 15	7.90	10.35
May 22	7.40	9.95
May 29	6.60	10.25
June 5	6.65	10.20
June 12	5.75	9.85
June 19	5.25	8.50
June 26	5.50	8.10
July 3	6.15	9.60
July 10	5.75	9.60
July 17	5.75	8.80
July 24	5.85	7.95
July 31	6.40	8.60
August 7	6.70	9.15
August 14	6.40	8.95
August 21	5.70	8.85
August 28	5.85	9.10
September 4	5.80	9.10
September 11	5.60	8.75
September 18	5.50	8.55
September 25	5.85	8.65

WEEDING THE FLOCKS.

By S. B. Hollings.

When the shearing season is over, autumn time quickly approaches, and the pastoralist has before long to begin to turn his attention to the general condition of his flock with regard to facing another winter. Before this period of the year actually commences some weeding has often to be done, and the greater care is bestowed upon this, the more satisfactory will the results be which are attained during coming seasons. The arbitrary division of the sheep into two-shear, three-shear, four-shear, and old ewes, though it is very useful, cannot be relied upon too much if the best results are to be attained. When the ewes have become full grown, the general rule would appear to be to consider them old enough to be drafted out of the flock. In reality at this age they may be considered young, and are certainly so if sound in constitution, but the fact that there is always a larger or smaller number of young ewes to bring into the flock makes the drafting necessary, and also plays some part in bringing in the revenue from the flock as a whole. It may be therefore taken as a sound principle that though the ages

already mentioned are useful for certain guiding purposes, to sell ewes from the flock during the autumn simply because they have attained an artificial age limit, is unwise.

There is always the need in any flock for a considerable proportion to be such as can be relied upon for breeding purposes, and for this neither very young nor very old sheep are eminently suitable. From these remarks the reader will be able to deduce one practical conclusion, which is that in drafting out the ewes, considerable attention needs to be given to the sheep individually. The past record of each needs to be taken into consideration, as well as its age and condition at the moment. To remove any individual ewe from the flock simply because it has got a full mouth, would be to leave out of consideration the weight and character of the wool grown, as well as the usefulness of the sheep in other respects. Though there are certainly limits beyond which it is not advisable to go, no member of the flock can really be described as too old to be retained, unless it shows some indication of a weakening in stamina. In this respect there is much difference in the wearing ability of individual members of the flock, for while some may be practically worn out at an early age, others though really older, will appear stronger and more vigorous. It will be realized that only from vigorous sheep can a good clip of wool be produced the following season, and for this reason, if for no other, we urge that very special care should be taken in retaining such ewes as appear most suitable for this purpose, and selling only those which do not come up to a reasonable standard of usefulness.

RAMBOUILLETS FOR CALIFORNIA STATION

Recently Professor Miller of the California Experiment Station visited the farm of Chas. A. Kimball, Hanford, California, and selected a number of Rambouillets to be used by the Experiment Station in its sheep breeding work.

APPROVES RAM SALE.

I believe you would have had a great ram sale at Salt Lake City if you had not been compelled to declare it off. In fact I believe the sale would have been even more successful than you think. I did not buy my rams and was waiting to get them at the sale and several of my neighbors were doing likewise.

I believe it would be a good idea to hold this sale next September and at the same time hold the meeting of the National Wool Growers' Association. I believe under such an arrangement you could get a tremendous turnout. The idea of a sale of stud rams suits me exactly for it will save a lot of travelling in order to see the different flocks.

W. T. HOGG, Cody, Wyoming.

DECEPTION IN SELLING RAMS.

A woolgrower from Wyoming who visited our office last week said: "I think the National Wool Growers' Association ought to take up this matter of putting oil and grease on fine wool rams that are being offered for sale. This is just a deliberate attempt to deceive the buyer, and I do not believe the practice would be tolerated in any other country. Recently in examining some stud rams, I found their fleeces so full of artificial oil that I ruined a suit of clothes. I have made a resolution never to buy another fine wool sheep that had had any oil put in his fleece. I hope you will not allow these oiled sheep to be entered at your ram sale if you have another."

WOOD LAMBS HEAVY.

The Wood Live Stock Company, Spencer, Idaho, for the first time sold their lambs at home this year, the price being $6\frac{3}{4}$ cents at the railroad. About 60,000 lambs are concerned in the transaction and the first train weighed 99.2 pounds; the second $77\frac{1}{2}$ pounds, but we have not the weight of the last train. The Wood people expect the whole outfit to average around 78 pounds.

The Boston Wool Market

BY OUR BOSTON CORRESPONDENT

RECENT developments in the crossbred wool situation have been the most important factor operative in the wool trade. Great Britain's announcement at the opening of the London sales that applications for licenses to ship crossbred wools to America would be considered, brought about something of a flurry in the Boston market. This quickly subsided when it was found that great delay was being made in getting the actual permits in hand. Not until the series was nearly over did the British authorities issue any actual licenses, and then in only a small proportion of the cases where application had been made.

Even this dilatory action was not taken until the hand of the War Trade Department had practically been forced by the action of the Australian Government. At the opening of the preliminary sale at Melbourne, September 21, it was announced that shipments of crossbreds to America would be allowed under substantially the same rules and restrictions as had been previously in force regarding Merino wools. Later, the trade was given to understand that similar action would be taken in New Zealand, which seems to throw the whole crossbred market wide open. Definite official announcement is still lacking in New Zealand, but the assurances given are considered so authentic that several of the Boston wool houses have already started their buyers on the long trip to that Colony.

It would be idle to endeavor to minimize the effect of opening of the crossbred markets in Australasia to American buyers. Already, the market for domestic wool has turned downward, and the demand from manufacturers

has fallen off to such an extent that less wool was moved in the closing days of September than in any similar period for many months. Naturally this has resulted in an easier feeling on the part of the holders of domestic wools. This is especially true of those who bought heavily in the West toward the end of the season, when values were at top notch. Something like a panic has been prevailing among certain classes of holders, and they have been endeavoring to stimulate buying from the mills, but with little success. Manufacturers are fairly well

bent on them to maintain values until that was done. Their example brought into the field many dealers who lacked either incentive, but who paid the high prices then current as a matter of competition. Now the problem is to dispose of this wool in the best possible manner, if not at a profit, at least at a minimum loss.

It is only fair to say that many of the larger houses, possibly it would be nearer correct to say the better-informed wool men, believe that the present depressed situation is only temporary. They do not deny that there must

be some readjustment of the world's wool trade, and that it is possible that somebody may be hurt during the process, but the war is not yet over, and disturbed conditions are sure to prevail for a long time to come. They point out that the tremendous waste of wool due to the war is going on unchecked, while the production is falling off everywhere. Probable losses in Australia have been widely published and commented on, but less has been said regarding the shrinkage in the clips of New Zealand and South America. World conditions during the past

year have been much more favorable to the consumption of wool than to its production.

It is notable that while the Boston market shows depression and weakness, the opposite is true in foreign markets. Everywhere the best combing wools are well sustained, especially in Colonial markets. At the Sydney sale of September 27 values were distinctly higher than at the previous sale two weeks earlier. Cables differed somewhat as to values paid, one giving good warp 64s as selling at a figure that means a clean landed cost



A STUD RAM OF UNUSUAL MERIT OWNED BY QUEALY-PETERSEN CO. COKEVILLE, WYOMING

supplied with wool to cover their initial light weight business, and they see no legitimate reason why "they should worry." Consequently trade is dull, with more sellers than buyers. Every effort to move their wools on the part of holders, and especially offers of concessions in prices, only confirms manufacturers in their do-nothing policy.

It is pointed out that the pace was set in the Western markets by manufacturers who could afford to pay more than dealers, or by some of the larger houses who had large stocks of foreign wool to dispose of and felt it incum-

here of 70 to 72 cents. Another cable gave a clean landed cost of 70 cents for best combing 64s, and 70 to 72 cents for 66s to 70s. Still another cable quotes slightly burry wools selling on the basis of 73 cents for shafty 70s and 68 cents for short combing 70s, clean landed cost. Other markets have shown surprising strength for all good combing wools, though faulty and inferior wools are everywhere easier.

Considerable speculation is developing in South America, where German buyers are showing great eagerness for the new wools. It is their operations that were responsible for the liberal contracting on the sheep's back, reported early in September. The volume of these early contracts were estimated at 25,000 bales, and by some observers as high as 50,000 bales. Recent quotations from Buenos Aires are on a basis fully as high as the top prices of last season. A large number of buyers from Boston will operate in that market this year, most of them already being there, though it is expected that the opening up of Australasian crossbred markets will have an adverse effect on Buenos Aires wools of the same description.

Taken as a whole, sentiment in this market has materially changed during the past month. Holders of choice wools are as firm as ever, and when such wools change hands, full prices are paid. But this is seldom, as the weight of faulty and inferior wool offering is so great as to depress the market in all sections. Territory fine and fine medium grades are particularly dull and neglected, and comparatively little progress has been made in the way of disposing of the current clip. Holders have been pushing out their medium wools, and a fair amount of these grades has been transferred to manufacturers' account during the past three months. It is currently reported that concessions of 1 to 2 cents the grease pound have recently been suggested on fine wools by dealers anxious to make sales, but without bringing out a favorable response from mill buyers. Undue eagerness on the part

of sellers is having its inevitable result in causing manufacturers to refrain from operating, as they are convinced that the situation is weak and tending downward.

Here is where the effect of the lack of a tariff is felt. While it is true that prices went up in the West earlier in the year, in spite of free wool, now that the pendulum is swinging the other way, the lack of the regulator, for such the duty on wool undoubtedly was, is likely to be keenly felt. The large profits gained by certain importers last year cannot be duplicated in the coming season, but the local importing houses are preparing for large operations in both South America and Australasia.

Actual transfers of Territory wools have been steadily dwindling, though the following have been noted during the past month: 50,000 pounds Soda Springs three-eighths-blood at 34 cents in the grease, or 70 cents clean; 50,000 pounds Soda Springs half-blood at 29½ cents; 50,000 pounds Utah fine and fine medium at 66 to 67 cents; Montana half-blood at 70 cents clean; Utah fine staple at 25 cents, or 68 to 70 cents clean; 200,000 pounds Soda Springs half-blood at 29 cents; 50,000 pounds Utah fine and fine medium at 24 cents; 300 bags original Montana at 27 cents; 60,000 pounds Wyoming three-eighths-blood at 32 cents; Montana half-blood at 30 to 31 cents, or 68 to 70 cents clean; 50,000 pounds Wyoming three-eighths-blood at 33 cents, or 68 to 70 cents clean; 25,000 pounds Montana fine staple at 26 cents, or 72 cents clean; 400,000 pounds Soda Springs half-blood and three-eighths-blood at private terms; 200 bags original Montana at 26 to 30 cents, or 67 to 70 cents clean; and 50,000 pounds Soda Springs quarter-blood at 33 cents, or 70 cents clean.

Scoured values are somewhat easier than they were a month ago, though fine and fine medium clothing grades have felt the depression most keenly. Fine staple Territory wool is quotable on the clean basis at 72 to 73 cents, fine medium staple at 68 to 70 cents, half-blood staple at 70 to 72 cents, three-eighths-blood staple at 67 to 69 cents,

quarter-blood staple at 65 cents, and fine and fine medium clothing at 65 to 68 cents.

Fleeces have also moved slowly, though there is more or less inquiry from manufacturers who are trying to keep in touch with prevailing conditions. Dealers have modified their extreme asking prices to some extent, but are still holding their best medium combing wools firmly. Actual sales reported for the month have included 100,000 pounds Michigan three-eighths-blood at 36 cents, 75,000 pounds Ohio half-blood at 35 cents, 80,000 pounds Missouri medium wool at 34½ cents, 100,000 pounds Ohio three-eighths-blood at 37 cents, and several hundred thousand pounds Ohio wool, various grades, at private terms.

Scoured Territories have moved with some freedom, though most of the later trading has been in wools grading fine medium and below. Prices have taken a wide range as to quality at from 50 to 68 cents. Good fine white wools are now quotable at 65 to 67 cents, with fine medium at 63 to 65 cents, with off wools and low sorts at 50 to 60 cents. Pulled wools have been dull, and holders, especially of old B supers, left over from last season, are beginning to show some anxiety. Such wools have been quoted recently at 60 to 62 cents for Eastern and 56 to 58 cents for Chicago. August pullings of lambs' B supers are only partially sold, and practically nothing has been done in the way of cleaning up the September pullings. These wools are quotable at 49 to 50 cents in the grease, or 60 to 61 cents clean, for Eastern. Eastern A supers are quotable at 63 to 65 cents and extras and fine A supers at 67 to 70 cents, with Chicago A supers at 60 to 62 cents.

Sales of Cape wools have been the principal item in foreign transfers of the month. Reported sales have included over 6,000 bales, the scoured basis being about 65 cents for combing wools. Other sales have been something like a million pounds of Montevideo and Buenos Aires wool at private terms; 600 bales Australian warp

64s at 33½ cents, or 70 cents clean; 100 bales Australian 70s to 80s at 73 to 75 cents; 200 bales Australian 64s to 70s at 33 cents, or 70 to 72 cents clean; 700 to 800 bags fine short scoured Capes at 57 cents, 100 bales carbonized Australian at 65 cents, 75 bales carbonized Australian lambs' at 63 cents, and a fair amount of South American lambs' at 33 to 35 cents.

Total receipts of wool at Boston for the month of September were 19,870,782 pounds, including 11,840,942 pounds domestic and 8,029,840 pounds foreign. This compares with 13,829,632 pounds for September, 1914, of which 6,605,302 pounds were domestic and 7,224,330 pounds were foreign.

From January 1 to September 30, 1915, total receipts were 350,541,823 pounds, including 152,577,208 pounds domestic and 197,964,615 pounds foreign. For the same period in 1914, total receipts were 307,144,363 pounds, of which 170,303,891 pounds were domestic and 136,840,472 pounds foreign.

Total shipments of wool for the month of September were 18,462,668 pounds, compared with 18,630,460 pounds for the same month last year. From January 1 to September 30, 1915, total shipments were 200,938,644 pounds, compared with 213,163,139 pounds for the same period in 1914.

A 640 ACRE HOMESTEAD LAW

We are advised by reports from Washington that Congress will more than likely enact a 640 acre grazing homestead law at the next session. Such a bill passed the House unanimously last year and was recommended for passage by the Senate, but it was defeated on the last day of the session even though a decided majority of the senators seemed to favor it. We have no doubt that when the bill is presented this winter it will likely become a law. To our mind the bill contains many dangerous features, and we herewith publish it as it passed the House last year:

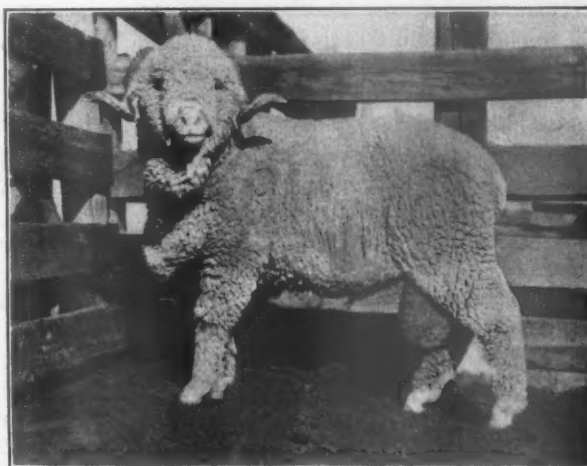
To provide for stockraising homesteads, and for other purposes.

Be it enacted by the Senate and

House of Representatives of the United States of America in Congress assembled, that from and after the passage of this act it shall be lawful for any person qualified to make entry under the homestead laws of the United States to make a stockraising homestead entry for not exceeding six hundred and forty acres of unappropriated unreserved public land in reasonably compact form; provided, however, that the land so entered shall theretofore have been designated by the Secretary of the Interior as "stockraising lands."

Sec. 2. That the Secretary of the Interior is hereby authorized, on application or otherwise, to designate as stockraising lands subject to entry

the homestead laws of lands so designated by the Secretary of the Interior, according to legal subdivisions, in areas not exceeding six hundred and forty acres, and in compact form so far as may be subject to the provisions of this act, and secure title thereto by compliance with the terms of the homestead laws; provided, that instead of cultivation as required by the homestead laws the entryman shall be required to make permanent improvements upon the land entered before final proof is submitted tending to increase the value of the same for stockraising purposes, of the value of not less than \$1.25 per acre, and at least one-half of such improvements shall be



YEARLING RAMBOUILLET STUD RAM PURCHASED BY COLIN CAMPBELL OF J. K. MADSEN, MT. PLEASANT, UTAH

under this act lands the surface of which is, in his opinion, chiefly valuable for grazing and raising forage crops, do not contain merchantable timber, are not susceptible of irrigation from any known source of water supply, and are of such character that six hundred and forty acres are reasonably required for the support of a family; provided, that the Secretary of the Interior shall not designate for entry under this act land of which, owing to its general character or general conditions, in his opinion, six hundred and forty acres clearly will not support a family.

Sec. 3. That any qualified homestead entryman may make entry under

placed upon the land within three years after the date of entry thereof.

Sec. 4. That any homestead entryman of lands of the character herein described, who has not submitted final proof upon his existing entry, shall have the right to enter, subject to the provisions of this act, such amount of contiguous lands designated for entry under the provisions of this act as shall not, together with the amount embraced in his original entry, exceed six hundred and forty acres, and residence upon the original entry shall be credited on both entries, but improvements must be made on the additional entry equal to \$1.25 for each acre thereof.

Sec. 5. That persons who have sub-

mitted final proof upon, or received patent for, lands of the character herein described under the homestead laws, and who own and reside upon the land so acquired, may, subject to the provisions of this act, make additional entry for and obtain patent to contiguous lands designated for entry under the provisions of this act, which, together with the area theretofore acquired under the homestead law, shall not exceed six hundred and forty acres, on proof of the expenditure required by this act on account of permanent improvements upon the additional entry.

Sec. 6. That in the event there are not contiguous lands in area sufficient to complete an entry of six hundred and forty acres, as provided for in this act, the entryman or patentee shall have the right to enter within a radius of ten miles from his first entry subject to the same requirements as specified for contiguous additional entries, lands in reasonably compact form which have been designated for entry under the provisions of this act, that shall, together with the first entry, not exceed six hundred and forty acres; provided, that the entryman shall be required to enter all contiguous areas open to entry prior to the entry of any non-contiguous land.

Sec. 7. That any person who is the head of a family, or who has arrived at the age of twenty-one years and is a citizen of the United States, who has entered or acquired under the homestead laws, prior to the passage hereof, lands of the character described in this act, the area of which is less than six hundred and forty acres, and who is unable to exercise the right of additional entry herein conferred because no lands subject to entry under this act adjoins the tract so entered or acquired or lie within the ten-mile limit provided for in this act, may, upon submitting proof that he resides upon and has not sold or encumbered the land so entered or acquired, relinquish or reconvey to the United States the land so occupied, entered, or acquired, and in lieu thereof, within the same land-office district, may enter and acquire title to six hundred and forty acres of

the land subject to entry under this act, but must show compliance with all the provisions of this act respecting the new entry and with all the provisions of existing homestead laws except as modified herein; provided, that the lands so relinquished or reconveyed as herein provided shall thereafter be subject to disposition only on such terms and under such rules and regulations as the Secretary of the Interior may prescribe.

Sec. 8. That the commutation provisions of the homestead laws shall not apply to any entries made under this act.

Sec. 9. That any homestead entrymen or patentees who shall be entitled to additional entry under this act shall have, for thirty days after the designation of lands subject to entry under the provisions of this act and contiguous to those entered or owned and occupied by him, the preferential right to make additional entry as provided in this act; provided, that where such lands contiguous to the lands of two or more entrymen or patentees entitled to additional entries under this section are not sufficient in area to enable such entrymen to secure by additional entry the maximum amounts to which they are entitled, the Secretary of the Interior is authorized to make an equitable division of the lands among the several entrymen or patentees, applying to exercise preferential rights, such division to be in tracts of not less than forty acres, and so made as to equalize as nearly as possible the area which such entrymen and patentees will acquire by adding the tracts embraced in additional entries to the lands originally held or owned by them; provided further, that where but one forty-acre tract of vacant land may adjoin the lands of two or more entrymen or patentees entitled to exercise preferential right hereunder, the tract in question may be entered by the person who first submits to the local land office his application to exercise said preferential right.

Sec. 10. That any person who has heretofore acquired title to land of the character designated in this act under

any of the homestead laws of the United States, and who is the owner and occupant of the land so acquired may purchase from the United States, not exceeding three hundred and twenty acres of stockraising lands, as designated by this act, or unappropriated and unreserved lands valuable only for grazing contiguous to his said homestead, upon paying to the United States the sum of \$1.25 per acre for such lands, under such rules and regulations as may be prescribed by the Secretary of the Interior, which said land, together with the area theretofore acquired under the homestead laws, shall not exceed six hundred and forty acres.

Sec. 11. That all entries made and patents issued under the provisions of this act shall be subject to and contain a reservation to the United States of all the coal and other minerals in the lands so entered and patented, together with the right to prospect for, mine, and remove the same.

NEW MEMBER FOR ASSOCIATION

You asked me to get a new member for the National Wool Growers' Association. I obtained one and enclose \$5.00 for the dues of J. N. Wornek. Please send the National Wool Grower to him.

A. J. MACKIE, Idaho.

AMERICAN MEAT CONFISCATED

Some months ago Great Britain seized about \$15,000,000.00 worth of American meat and meat products that were being sent by our Chicago packers to Denmark. This meat was possibly destined for Germany or at least the English presumed that it was. The British government claims the right to confiscate the meat without reimbursement to the American packers. The packers have presented the matter to the Department of State with the intention of securing reparation from Great Britain for the loss.

WOOLEN MILLS CLOSE IN SWEDEN

A dispatch from Stockholm, Sweden, of August 24th, states that on account of the lack of wool many Swedish woollen mills have been forced to close down. The Swedish Consul in the United States is attempting to secure exports of wool from this country to Sweden and there seems to be no reason why he should not be successful.

MORE SHEEP IN TEXAS.

A survey of the range situation leads me to believe that only two western states will show any perceptible increase in sheep next year even though prices in all states offer an incentive to increase the sheep stock of the country. The two states most likely to show a perceptible increase are Texas and New Mexico. There is no doubt that Texas has increased her flocks not only by reserving the ewe lambs but by purchasing sheep in surrounding states as well as in Old Mexico.

The wool growers of Texas are all on a pasture basis. That is, their lands, all being deeded or leased, are, therefore, fenced, and the sheep are turned loose in pastures in many parts of the state. These Texas wool growers are staying with the Merino and the other breeds of sheep have made no perceptible influence on our sheep stock. Texas raises a great many fine wool rams and this year she has bought a great number in northwestern states and would have bought a considerable number in Ohio and Michigan only for the fact that the quarantine on account of foot and mouth disease has prevented their entering the state. It is just possible that lamb growing in the northwestern states is going to become so profitable that the sheepmen of those sections will not be able to retain ewe lambs with which to replenish their flocks. Under such circumstances it is more than probable that Texas and New Mexico may become the breeding ground of stock sheep for much of the northwestern range country. It

has been the breeding ground for range cattle for many years, and there is every reason to believe that the transition that occurred in the cattle industry will likewise happen with the sheep. If such comes about, northwestern breeders can be assured of obtaining a supply of good fine wool ewes in this southwestern country.

Some of our cattlemen have gone into the sheep business and many of them have simply added a few sheep to their cattle pastures without interfering in any way with the number of cattle which the pastures previously carried.

E. B. THOMAS, Texas.

Chicago as well as at other eastern points where it has attracted the widest attention and most favorable comment from the public. While the exhibit was shown at Salt Lake last year, no opportunity was given to examine or explain it, and this year sufficient time will be given to the exhibit so that the woolgrower who sees it will leave the convention with a broader knowledge of wool and woollens than he has ever before possessed. Since this exhibit has shown here last year, the warehouse has made many changes in it and have added to it many features of profound interest and value to western wool growers. Many of the



A NEW ZEALAND ROMNEY TO BE SEEN AT THE PANAMA-PACIFIC EXPOSITION
WOOL EXHIBIT AT SALT LAKE.

In connection with the Fifty-second Annual Convention of the National Wool Growers Association at Salt Lake City, January 13, 14 and 15, the National Wool Warehouse and Storage Company of Chicago will have on display their magnificent exhibit of wool and textiles. This is probably the most complete wool exhibit in the world as it is not only a display of the various grades of wool but of the products made from each grade. The exhibit has been collected at great labor and expense and has been frequently shown at the International at

sheepmen who saw it last year have specially requested that it be exhibited again this year as they desire further time to study it. We imagine that this wool exhibit is going to be one of the big features of our next National Convention.

ENCLOSED IS SEVEN DOLLARS.

Enclosed please find our check for \$7.00, \$5.00 for dues and \$2.00 for subscription to the National Wool Grower. It isn't that we do not appreciate the Wool Grower or believe in the Association, it is just dam neglect.

BREARLY AND WILLIAMS,
Montana.

VACANT LAND IN EASTERN STATES

Western people generally hold the belief that all the public land that now remains is in the far western states and that no land is available for homesteading in the eastern states. In eastern states there is still available for homesteading unreserved public land amounting to 47,940 acres in Alabama; 278,155 acres in Arkansas; 268,484 acres in Florida; 75,214 acres in Kansas; 101,016 acres in Louisiana; 76,030 acres in Michigan; 943,831 acres in Minnesota; 36,882 acres in Mississippi; 923 acres in Missouri; 192,358 acres in Nebraska; 493,667 acres in North Dakota; 42,177 acres in Oklahoma.

THE SHORTAGE STATISTICALLY

Receipts of sheep and lambs at the six principal western markets of the United States during the first nine months of the current year were 1,635,134 less than during the same period of 1914. The standing of the several markets follows:

			Increase or Decrease.
Nine Months.	1915.	1914.	
Chicago	2,474,914	3,957,021	x1,482,107
Kansas City	1,318,159	1,437,781	x131,622
Omaha	2,318,694	2,195,200	*123,494
St. Louis	502,003	630,675	x128,675
St. Joseph	699,462	657,949	*41,513
Sioux City	175,790	233,527	x57,737
	7,513,022	9,148,156	x1,635,134

The September movement was very deficient, the figures explaining to some extent why such a high level of prices was maintained. The details follow:

			Increase or Decrease.
September.	1915.	1914.	
Chicago	347,162	650,498	x303,336
Kansas City	283,251	288,593	x5,342
Omaha	648,780	564,918	*83,862
St. Louis	58,535	52,774	*5,761
St. Joseph	139,469	109,010	*30,459
Sioux City	48,676	50,021	x1,345
	1,525,873	1,715,814	x189,941

xDecrease. *Increase.

The Missouri River markets, espe-

cially Omaha, have increased at the expense of Chicago, owing to foot and mouth disease, but the figures leave no room for doubt that scarcity is the keynote of the situation.

RULES FOR LAMBING.

We are forwarding you a copy of "Total Percent Lambing Rules." The advertisement I ran in the National Wool Grower during the early part of the year brought me many patrons from your subscribers.

TOM BOYLAN,
Rock River, Wyoming.

NOT BUYING CAKE.

Said an Idaho woolgrower: "I am not going to buy a pound of cottonseed cake this year simply because the mills have boosted the price about \$5.00 per ton. I fed five cars of cake last year and would have used 250,000 pounds this year at the same price, but I refuse to be held up. In place of cake I am going to feed a little more alfalfa and for grain will use barley and oats. Many Idaho men will do likewise."

TARIFF ON SUGAR.

When the Democratic party last year revised the tariff the tariff on sugar was 1½ cents per pound. Sugar was placed on the free list but with the proviso that the tariff should be removed from it at the rate of one-half cent per pound each year, thus it would have been on the free list at the end of the three years. Sugar has been one of the country's greatest revenue producers, and by placing it on the free list something over \$50,000,000.00 in revenue would be lost annually. As the government is running behind, the Secretary of the Treasury has recommended to the President that the tariff law be amended so that a duty of one cent will be retained upon sugar. It is presumed that the President will recommend this legislation to Congress.

TOP LAMB PRICES AT PORTLAND, ORE.

Aug.	1915.	1914.	1913.
5	6.25	6.00	6.00
6	6.00	6.00	5.50
7	6.00	6.00	5.50
8	...	6.00	5.50
9	5.75	...	5.50
10	6.25	6.00	...
11	6.15	6.00	5.75
12	6.00	6.00	5.75
13	5.00	6.00	4.75
14	5.00	6.00	4.50
15	...	6.00	4.25
16	6.25	...	4.25
17	6.50	6.00	...
18	6.25	6.00	4.50
19	6.50	6.00	5.00
20	6.50	6.00	5.00
21	6.00	6.00	4.75
22	...	6.00	5.00
23	6.50	...	5.00
24	6.50	6.00	...
25	6.25	6.00	5.00
26	6.35	6.00	5.00
27	6.25	6.00	5.25
28	6.35	6.00	4.00
29	...	6.00	5.00
30	6.50	...	5.00
31	6.35	6.00	...
Sept.			
1	6.25	6.00	5.00
2	6.50	6.00	5.25
3	6.50	6.00	5.25
4	6.25	6.00	5.25
5	...	6.00	5.25
6	5.25
7	6.50
8	6.60	6.00	4.05
9	6.60	6.00	4.75
10	6.75	6.00	4.75
11	6.50	5.75	4.75
12	...	5.75	4.50
13	7.00	...	4.50
14	7.00	6.00	...
15	6.75	5.75	4.50
16	7.00	5.60	4.50
17	6.75	5.50	5.50
18	7.00	5.75	5.50
19	...	5.75	5.50
20	7.00	...	5.50
21	7.00	6.00	...
22	7.00	6.00	5.25
23	7.25	6.00	5.25
24	7.00	6.25	5.25
25	7.00	5.75	5.25
26	...	5.75	5.25
27	7.25	...	5.25
28	7.25	6.10	...
29	7.25	6.00	5.30
30	7.25	6.00	5.30
Oct.			
1	7.00	5.50	5.25
2	7.00	6.00	5.25
3	...	5.25	5.25

Get us a new subscriber.

THE KNOLLIN SHEEP COMMISSION COMPANY

SOUTH ST. JOSEPH, MISSOURI

sold for Mr. B. Thomas Morris, of Pocatello, Idaho on August 26th, 1990 lambs, average **70½ pounds at \$9.10** and 70 lambs average 56 pounds at \$8.40.

This is what Mr. Morris says about the Knollin & Finch Shropshire Bucks and about The Knollin Sheep Commission Company service:

Mr. A. J. Knollin,
South Omaha, Nebr.

Pocatello, Ida., Aug. 31, 1915.

Dear Sir:

Your favor of recent date at hand, and replying to same will say that our lambs were bred from Shropshire rams of your own breeding. We shipped 80 per cent of our lambs, and our lambing was 105 per cent; so, you will note that we did very well considering the number of twins we had, and our net results were more than satisfactory. Our lambs this year were just a little heavier than we have been making them for the past five years, but this is due to a smaller percent of them being shipped.

You know, we have been using your rams for six years past and each year have been topping the Missouri River market with them, both as to price and cut; topping them for from 25c to 40c per hundred, and from 15 per cent to 30 per cent in sort, so that you will know from these facts that we have been making some wonderful lambs.

I am convinced of one thing, and that is, the Shropshire lambs will grow fat and hold that fat under less favorable conditions than any other rams we have ever used.

We are in the market this year for another band of ewes, and if we succeed in getting them, we will want some of your Shropshire rams to go with them.

Thanking you and your house for the good services rendered us, we are,

Respectfully,

B. THOS. MORRIS.

**Will You
Accept a
Generous
Sample of
Capell Stock
Salt If We
Send It Free**

?

Yes, we mean exactly what we say—

If you will send us your name, address, and nearest shipping point, and state how many sheep, cattle and horses you have, we will send you a 50-lb. bag of Capell Stock Salt, charges prepaid. The best way to know Capell Stock Salt is to try it and if you will mail the request today, we will quote prices, that are certain to interest you.

The sample is yours for the asking.

ADDRESS

Capell Salt Co.

Works at
Salduro, Utah

Main Office McIntyre Bldg.
Salt Lake City, Utah

VERMIN-GO

The pioneer, original and unequalled preparation for the killing of all kinds of vermin, insects, bugs and eggs. Absolutely stainless and guaranteed to eradicate absolutely all kinds of insects. Vermin-Go has been sold and used by the largest institutions in every state in the union for many years, and is universally recognized as the standard preparation for killing insects and bugs. Sold by the "Worrell" Mfg. Co. of Utah, Salt Lake City. The only exclusive disinfectant and insecticide firm in the state. A trial order from you will make you a permanent customer. Patronize a home firm as it always pays.

Worrell Mfg. Co. of Utah

20 East South Temple

Telephone Wasatch 2314

Salt Lake City, Utah

\$11.50

FOR

Fed Lambs

519 AVERAGING 78 LBS.

Sold May 14, 1915

THE

Highest Prices

EVER RECEIVED

AT THE

\$9.00

FOR

Fed Ewes

209 AVERAGING 91 LBS.

Sold May 13, 1915

SOUTH OMAHA MARKET

These lambs and ewes were fed and shipped by Belmont & Klink from their feed yards in Scotts Bluff Co., Nebr., and were sold by SMITH BROS. COMMISSION CO. Both sales stand as record sales at South Omaha being the highest in the history of the market and the only sales at these prices.

TAGG BROS. & MOOREHEAD

have recently acquired Smith Bros. Commission Co.'s interest at the South Omaha market, and in the future all the business at the South Omaha office will be handled by Tagg Bros. & Moorehead, who retain the same organization that has been handling the joint business since January 1, 1913.

UNION STOCK YARDS, SO. OMAHA, NEB.

Are You Going to Stay in the Sheep Business?

YES

Then let us go over some facts together.

It is well established that the RAMBOUILLET herds best and requires less range than any other breed or cross-bred. It is likewise well established that the average annual loss in RAMBOUILLETS is decidedly less than in any other breed or cross-bred. It is also certain that the RAMBOUILLET ewe is useful at least three years longer on the range than any other breed or cross.

The above factors are the ones that determine whether you are to stay in the sheep business or not---then when you add to them the fact that the RAMBOUILLET gives as much wool and mutton as any other bred you have the best reasons in the world for using RAMBOUILLET RAMS this fall.

For literature about this breed address

**American Rambouillet Sheep Breeders
Association**

R. A. JACKSON, President
DAYTON, WASHINGTON

DWIGHT LINCOLN, Secretary
MILFORD CENTER, OHIO

COOPER'S SHEEP DIP

COOPER'S FLUID is a highly concentrated disinfectant of the Cresol class—it contains 60 per cent of pure Cresol suitably combined to gain the maximum disinfecting qualities.

Cooper's Dip contains ingredients which stimulate the functions of the skin, nourish the wool fibres and increase the flow of yolk. This means more and better wool. The most exacting and experienced wool growers of Australia and England evidence the value of Cooper's Dip as a wool tonic. Cooper's Dip increases the luster of the fleece—a very desirable feature in the show ring. At the **ROYAL SHOW**—the world's premier sheep show—over 92 per cent of all sheep shown were Cooper Dipped. This continued use by England's leading breeders is all sufficient proof of the beneficial action of Cooper's Dip.

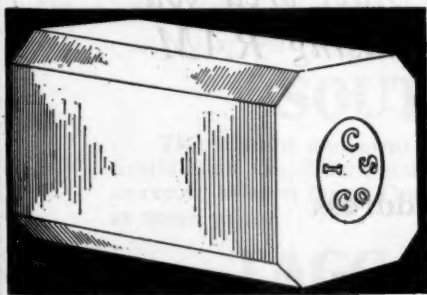
WESTERN AGENTS FOR

**Cooper's Fluid, Cooper's Powder Dip, Cooper's Coal-Tar,
Stewart Shearing Machines, Kemp's Branding Liquid,
Cooper Wool Baler, Fleece Twine, Wool Bags.**

The Salt Lake Hardware Co.

EVERYTHING IN SALT

Table Salt, Dairy Salt, Hide Salt, No. 1 Salt, Pickle Salt,
Mined Rock Salt, No. 2 Sheep Salt and
all other grades and all of first quality.



*We never lose a customer because we
give quality and accord honorable
treatment. We are in business to stay.*

INLAND CRYSTAL SALT CO.

SALT LAKE CITY, UTAH

The National Wool Grower

Published Monthly by the National Wool Growers' Association Company
(Incorporated)

Published at 718 McIntyre Bldg., Salt Lake City, Utah

Edited by the Secretary

Subscription One Dollar Per Year. Entered as Second-Class Matter January, 1913, at the Post Office at Salt Lake City, Utah, under Act March 3 1879.

FIFTY-THIRD ANNUAL CONVENTION

On the cover of this issue will be found the call for the Fifty-second Annual Convention of the National Wool Growers' Association, issued by President Hagenbarth. The National Wool Growers' Association is probably the oldest livestock organization in America; it represents one of the nation's greatest industries, and from its beginning in 1864, it has been a powerful factor in shaping the destinies of our country's sheep breeders and wool growers. That this organization has survived fifty-two years and is today more active and virile than at any time in its history is a clear indication of the worth of the organization and the necessity for its continuation. Recent conventions of the National Wool Growers' Association have been exceptionally well attended even though numerous vicissitudes existed in the paths of flockmasters. Nineteen hundred and fifteen has been a good year for sheepmen generally, and, if we have had good attendance at our conventions in bad years, we have every reason to expect a banner meeting in 1916.

A NEW COYOTE CAMPAIGN.

Last year the National Wool Growers' Association set aside the month of January as poison month. During that month we urged every western stockman to keep his ranges covered with poison, put out hunters and do everything in his power to destroy

predatory wild animals. As a result of this concerted effort, many stockmen who have previously done nothing toward the destruction of predatory wild animals became active in securing their eradication. Our reports this spring were that in most sections the number of coyotes were less than for many years. The reduction in their number has been so great that in many sections where heavy losses were previously suffered no serious loss has occurred this year. Officers of this association are firmly convinced that by a united effort western stockmen can destroy sufficient predatory wild animals so that their depredations may no longer be a matter of serious concern.

Wool growers from many parts of the country have asked the National Wool Growers' Association to continue this predatory wild animal campaign during the coming winter, and the officers of the Association have therefore, set aside the months of December and January during which time they will ask every western wool grower to take an active part in destroying these animals. The legislatures last winter raised many of the bounty laws and the Federal government has a large force of expert hunters in the field so that the stockman has every incentive to use his best efforts the coming winter for the destruction of predatory wild animals. The officers of the National Wool Growers' Association feel that in taking up this work they will have the co-operation and support of a very great majority of western sheepmen.

ADVANCING FREIGHT RATES AGAIN

In the last issue of this paper, we announced the fact that in the case involving an advance in livestock rates from western states to eastern terminals the Interstate Commerce Commission had held with the shipper and had refused to permit the railroads to make the advances proposed. Even though this advance rate case had been heard by the Interstate Commerce Commission at great length, the railroads are dissatisfied with the opinion of the commission and are now appealing for a rehearing of the case in the hope that they may be able to induce the commission to change its opinion. This case was heard at great length by the commission and both the livestock interests and the railroad interests were given ample opportunity to present their sides. After the case had been heard for something over eleven days, during which time the railroads had many witnesses before the commission, the commission took the case under advisement for more than a year, and now that they have returned a decision contrary to the desires of the railroads, it seems to us they can hardly hope to have the case reopened for further investigation.

A GOVERNMENT BREEDING FARM

When the Wool Conference called by the Secretary of Agriculture met in Washington in June, 1914, the National Wool Growers' Association suggested that it would be very desirable if Congress would make an appropriation for the establishment of a government breeding farm somewhere in the western states. Our sheep and wool industry is of vital importance to the nation, and now that Europe is at war, it must be more and more evident to the powers that be that a nation which neglects her supply of wool and mutton is simply courting disaster. As one of the means of promoting the welfare of our sheep industry, we would suggest that Congress make an

appropriation sufficient to establish a sheep breeding farm in the West. We say in the West because the West now is and undoubtedly always will be possessed of a large percentage of our nation's sheep. In fact the conditions obtaining in the West are peculiarly congenial to sheep husbandry and, therefore, experiments to be most useful must be conducted in that territory. There are many problems confronting the western wool grower that he is not in a position to solve and that the government has not the right to expect him to solve. They are strictly government problems. They should be handled in an experimental way by the government. We hope that Congress will this year establish such a farm.

THE PUBLIC DOMAIN.

We present herewith a table showing the total area of western range states, the amount of land taken by homesteaders last year as well as the total amount of public land that remains in these states subject to homestead entry:

State—	Area Acres	July 1, 1915 public lands left for settlement.
		Acres
California	101,310,080	20,635,923
Montana	94,078,080	19,065,121
New Mexico	78,485,760	27,788,357
Arizona	72,931,840	36,810,327
Nevada	70,841,600	55,415,746
Colorado	66,526,720	17,236,114
Wyoming	62,664,960	30,929,969
Oregon	61,887,360	15,442,178
Utah	54,393,600	33,363,837
Idaho	53,688,320	16,212,273
Washington	44,241,280	1,144,605
South Dakota	49,036,800	3,519,488
Total	810,086,400	277,563,938

This table indicates that the public domain is fast dwindling to insignificance. Originally the territory that now represents continental United States contained about two billion acres of land, all of which at one time or another was subject to entry of

some kind. The ambition to own a home has reduced this vast domain to 277,563,938 acres. Of course there is a small amount of public land in several of the states besides those here given, but the area in any state outside of those named in no case amounts to a million acres, and in most instances the public lands remaining in eastern states amount to less than 200,000 acres, and in many states the public lands are entirely exhausted.

Congress this winter will no doubt insist upon taking some action looking to the disposal of the remaining public domain. At the present time it is conceded by those who have had most experience in the West that there remains practically no lands suitable for the production of crops even under the most intense system of dry land farming. Congress seems to recognize this fact, and we venture to predict that the balance of the public domain will be disposed of in some form of a grazing homestead. Last winter Congress attempted to pass, and came mighty near doing so, a grazing homestead of 640 acres. Certainly our congressmen must know that there does not remain in the West today 640 acres of public domain upon which anyone could make a living producing livestock. The public lands that now remain vacant will require thirty to fifty acres to support a cow, and much of the vacant land is practically worthless for grazing except during some short season of the year. If it is the intention of Congress to dispose of these public lands for the sake of humanity, let them make an intelligent disposition of them. If Congress believes that a grazing homestead law must be enacted, then make the homestead large enough so that the homesteader will have a reasonable chance of making a living. To assure him of this the homestead should contain not less than four sections.

We believe, however, that in a nation facing a shortage of meat that the wisest and best disposition of our public lands will be to devote them to

the production of sheep and cattle under some system of leasing. Homesteaders are not stockmen and not one homesteader in twenty-five ever becomes a stockman. To run livestock successfully in the West, they must be handled on a reasonably large basis and the cost of obtaining sufficient stock to support a family is in most cases greater than homesteaders can afford. Anyway our western lands are not suitable for homesteading any longer. Today they consist of summer range and winter range, and any attempt to confine our livestock upon the same land throughout the year will be fraught with serious consequences to the owner.

The three propositions concerning the disposal of the public domain now before Congress are: First, turn the remaining public lands over to the states; second, dispose of them by the enactment of a grazing homestead law; third, lease them to the stockmen who have been using them in the past and to such new stockmen as may establish a right to their use. It seems to us that the suggestion of turning these lands over to the state is untenable. We believe that a grazing homestead sufficiently large for the homesteader to reasonably expect to make a living cannot be enacted and that even under the most favorable circumstances it is highly questionable whether a grazing homestead law would prove desirable. As we see it, the wise solution of this whole question is to lease the remaining public domain to men for the purpose of raising livestock thereon. This country has reached a point where it has a surplus of grain, but is now experiencing a distinct shortage in meat. Under such circumstances every encouragement should be given to the producer of livestock, and the greatest aid to livestock production in this nation would be an intelligent lease law operated by the Federal government.

The National Wool Growers' convention will be held in Salt Lake City, Utah, January 13-14-15.

SUCCESSFUL COYOTE CAMPAIGN

There is no question but that the campaign against coyotes and wolves as instigated and advocated by the National Wool Grower has done a great deal towards keeping down the number of coyotes in this part of the country. The interest taken in the question by the National Wool Grower had a good effect upon the flock masters and farmers by way of encouraging them to protect their own livestock and poultry by trapping and shooting coyotes and wolves.

The Lincoln County Wool Growers' Association paid a bounty of \$2.50 for coyotes all last winter, which was an advance of \$1.25 over the bounty formerly paid, with the result that practically four times as many coyotes were caught and turned in for bounty than had ever occurred during the same length of time in previous years.

Seeing an opportunity to join a good cause at the right time and in an effective way, more woolgrowers probably put trappers to work on their individual lambing grounds than ever before and coyotes were never fewer in and around Cokeville, Wyoming, than they are this year. Practically every sheep owner in the country responded to the call by assessment for funds with which to pay the bounty, and when the month of January arrived—the month agreed upon for general poisoning of coyotes, conservative and systematic coyote poisoning was the order of the day. The advice published in the National Wool Grower as to the better methods of preparing and distributing poison and particularly in regard to taking up all old baits in time to protect the dogs, was very practical and timely. Have not heard of a case of dogs getting poisoned, which goes to show that the way to protect the dogs is to take up and destroy all poisoned baits before the sheep come up in the spring.

The work should be carried on even more vigorously the coming winter both as to trapping and poisoning and

then if communities would unite on a few pair of trained trailing hounds and put a good man with each pair of hounds for two or three weeks the latter part of May and during June, they ought to be able to trail the old ones to their dens and it is then a small job to dig the young ones out and destroy them in litters of four to nine pups to each den together with the mother coyote, who by the way, will destroy as many lambs during one month of lambing season as a male coyote will kill in a year.

A man with a good horse and a gun should ride with the dogs when trailing coyotes, especially in the spring time when the whelps are young, as



AN ARTESIAN WELL NEAR HUNTSVILLE, UTAH
148 FEET DEEP FLOWING 1 1/4 MILLION
GALLONS EACH 24 HOURS.

when nearing her den the coyote will frequently turn on the dogs and if they are not pretty savage and fresh will whip them back and discourage them so they will stop following her and she may then change her course, not go to the den, and after a few such experiences your hounds seem to lose interest and may not even follow a trail at all. But, follow up and encourage the hounds and help them destroy their prey and they will learn to like the sport and get more vicious as they get older.

The publishing of scent and bait receipts and the handling of traps, etc.,

is a big help, as it educates and makes trappers of the boys, the farm hands and the herders.

J. D. NOBLITT, Wyoming.

MANY ARTESIAN WELLS.

In this issue we show a photograph of an artesian well near Huntsville, Utah. This well is 148 feet deep and flows one and a half million gallons of water each twenty-four hours. This particular well is one of eighteen that has been dug in less than half an acre of land. All of the wells range in flow from four hundred thousand gallons to one and a half million gallons each twenty-four hours. These wells furnish the water supply of Ogden, Utah.

A TARIFF ON WOOL.

Salt Lake City, Utah.
Chairman, Committee of Ways and Means,
House of Representatives,
Washington, D. C.

Dear Sir:

In view of the fact that the treasury of the United States is short of funds, we desire to call your attention to the enormous revenue that could be derived by the Federal Government by placing a reasonable tariff upon the imports of wool. During the fiscal year closing June 30, the United States imported 302,781,866 pounds of all kinds of wool, which was valued at \$66,609,142. Assuming that the Federal Government placed a duty of 30 per cent ad valorem upon this, it would yield a net revenue to the treasury of \$19,982,742.60.

We think the experience of the present administration under free wool clearly shows that a tariff upon wool does not in the slightest influence the price of clothing at retail. Under these circumstances it is certainly unbusinesslike for the Federal Government to throw away this enormous revenue that could be derived by placing a reasonable tariff upon imported wool.

NATIONAL WOOL GROWERS' ASSOCIATION.

Once Upon a Time

An old lady who had cured a number of hams, cut into one of them when she had threshers for dinner and was heartbroken to discover that the ham which looked so tempting had soured and was unfit for use. She left the others hanging in the smokehouse and when asked why she did not cut into one of them once in a while replied: "I'm afeered I'd find it spoilt."

The old lady's reluctance to court a second disappointment is closely related to the attitude of a great many livestock shippers. Choosing commission service at random was never a business-like way of getting the best. When you hear a sheepman remark that "all commission firms are alike" and that "there is mighty little difference in the service rendered," you may reasonably conclude that he has made comparisons of his returns from two or three random shipments. He is "afraid to cut into another ham," because those which appealed to him in the first place may have proved none too palatable.

The main trouble with a shipper of this type is that he does not know that the best cured and soundest ham in the lot still remains hanging in the smokehouse of commission service. It is stamped plainly with "Sheep Sales that Suit," and full measures of Actual Merit and Experience were used in the curing process. Whenever you find yourself in a doubtful frame of mind we suggest that you look for the brand—

"SHEEP SALES THAT SUIT"

and Bill Your Shipment to

CLAY, ROBINSON & CO.

Chicago So. Omaha Kansas City So. St. Joseph Denver Sioux City
So. St. Paul E. Buffalo E. St. Louis Fort Worth El Paso

TERMS USED IN THE WOOL TRADE

U. S. Bulletin 206.

Black wool—Includes any wool that is not white.

Braid wool—Grade name, and synonym for luster wools.

Britch wool—Wool from the lower thighs of the sheep; usually the coarsest on the body.

Carbonized wool—That which has been treated with a solution of aluminum chlorid or sulphuric acid to remove the vegetable matter. Carbonizing is rarely practiced with worsted wools.

Carding—Consists of opening the wool staples, separating to a certain extent the fibres, and condensing and delivering the opened wool in a continuous strand or sliver.

Carpet wool—Low, coarse wool used in the manufacture of carpets. There is very little produced in the United States.

Combing—An operation in worsted manufacture which straightens the fibers known as noils from the continuous strand of long parallel fibres known as top.

Come-back—In America this refers to a wool fine in quality and having more length than would ordinarily be expected. In Australia it is the result of breeding crossbreds back toward pure Merinos, one of the parents being a pure Merino.

Condition—Refers to the degree of oil in grease wool. It largely regulates the price. In scoured wool it is used to indicate the degree of moisture.

Cotted fleeces—A cotted fleece is one in which the fibres are matted or tangled. The cause may be ill health of the sheep or the absence of the proper amounts of yolk or grease in the wool.

Cow tail—A very coarse fleece, more like hair than wool.

Crimp—The natural waviness of wool fiber. Uniformity of crimp indicates superior wool.

Crossbred wools—In the United

States the term generally refers to wool from a longwool and finewool cross.

Defective—Denotes that something will show disadvantageously after the wool is scoured. Fire, water, or moths may cause defective wools. California burry wool is quoted as defective.

Delaine wool—Delaine originally referred to a fine type of women's dress goods. Delaine wools are fine combing or worsted wools, from Ohio and vicinity, but not necessarily from the Delaine Merino.

Fall wool—Wool shorn in the fall where shearing is practiced twice a year, as in California and Texas. The fall wool is usually dirtier than the spring clip. It represents from four to six months' growth.

Filling (weft)—Threads that run crosswise and fill in between the warp.

Fribs—Short and dirty locks of small size. Dungy bits of wool.

Frowsy wool—A lifeless appearing wool with the fibres lying more or less topsy-turvy. The opposite of lofty wool.

Grease wool—Wool as it comes from the sheep with the grease still in it.

Hogget wool—English term for the first wool from a sheep.

Kemp—Not a dead hair, but an abnormal fibre made up entirely of horny material, such as is on the outside of ordinary wool fibre. It will not dye as well as the ordinary fibre and does not possess spinning qualities.

Line fleeces—Those midway between two grades as to quality or length.

Lofty wool—Open wool, full of "life." Springs back into normal position after being crushed in the hand.

Luster wool—That from Lincoln, Leicester, and Cotswold sheep. It is known as luster wool because the coarse fibres reflect the light.

Modock—Wool from range sheep that have been fed and sheared in the farm States. The wool has qualities of both regions.

Noil—A by-product of worsted manufacture consisting of short and tangled fibres. It is used in the manufacture of woolens.

Off sorts—The by-products of sorting. In fine staple or any other grade there are certain quantities of short, coarse, stained and colored wools. These are the off sorts.

Picklock wool—Formerly a grade above XXX. Picklock was the product of Silesian Merino blood. There is no American market grade of that name at present; a little of this quality of wool is produced in West Virginia.

Pulled wool—Wool taken from the skin of a slaughtered sheep's pelt by slipping, sweating, or the use of depilatory.

Quality—The diameter of the wool. It largely determines the spinning quality.

Run-out fleece—One that is not uniform but much coarser on the "britch" than elsewhere. It may be kempy.

Shafty wool—Wool of good length and spinning qualities.

Shearlings—Short wool pulled from skins of sheep shorn before slaughtering. Also English term for yearling sheep.

Shivy wool—A somewhat broad term. It refers to the presence of vegetable matter in the wool.

Shoddy—Wool that has been previously used for manufacturing purposes, torn apart and made ready to use again.

Skirting—Skirting fleeces consists in removing the pieces and the low-quality wool of the britch from the edge of the fleece.

Spring wool—Six to eight months' growth; shorn in the spring where sheep are shorn twice a year.

Stained wool—That which is discolored by urine, dung, etc.

Staple—(a) A lock or bunch of wool as it exists in the fleece. (b) Western combing wool.

Stubble shearing—Shearing some distance from the skin, leaving a "stubble."

Suint—Excretions from sweat glands deposited in the wool.

Sweating sheds—Sheds in which sheep are "sweated" before shearing. The purpose is to raise the yolk and make shearing easier.

Tags—Large dungy locks.

Territory wools—Territory wools are in general those that come from the territory west of the Missouri River.

Tippy wool—Wool in which the tip or weather end of the fibre is more or less incrustated.

Top—A continuous untwisted strand of the longer wool fibres straightened by combing. After drawing and spinning it becomes worsted yarn.

Top-maker's qualities or counts—Top-maker's qualities or counts are the numbers used in designating the quality of certain foreign wools. They range from 12's upward. The numbers are supposed to indicate the number of hanks of yarn a pound of top will spin to. Each hank represents 560 yards.

Tub washed—Wool that has been washed after having been sheared. Very rare in America; was formerly practiced in Kentucky.

Virgin wool—Wool that has not previously been used in manufacturing.

Warp—The threads that run lengthwise in cloth.

Washed wools—Those from which the suint has been removed by washing the sheep before shearing.

Wether—In English wools it refers to wool other than the first clip from the sheep. In sheep, a castrated male.

Yolk—The fatty grease deposited upon the wool fibres from the oil glands.

PROSPECTIVE LIVE MUTTON MARKETS

At the inception of October packers made a violent attack on live mutton values. Reasons for the raid were glibly assigned. In the first place the public had practically ceased eating mutton asserted the mouthpieces of the killer. Packers had wearied of vending product at a loss, they reiterated. Another good and valid reason was that pulled wool was a drug on the market and that skins could not be given away as a bonus with the wool.

The raid lasted just 24 hours where-

upon packers somewhat ungraciously admitted their needs and stepped up to the captain's office to settle for western lambs on a \$9.00@9.25 basis. Several times during September the same racket was worked but on each occasion the reaction was more prompt and forcible than the drive. During the last week of September western lambs reached a \$9.00@9.25 basis and it is probable that more could have been used on that basis.

Undoubtedly lamb and mutton consumption has been reduced to the smallest volume per capita than at any time during the past two years. Both meats have been luxuries and probably will be. Pork is cheap and the general run of grass beef is not commanding such outrageous prices, but when the consumer attempts to buy lamb or mutton, he is astounded. And the retailer is indifferent whether he sells it or not. His margin of profit on pork is ample and beef yields more than mutton. Only these people are eating lamb and mutton who have a pronounced taste for it and are not disposed to balk at the price.

September price events have left a spirit of optimism in the trade mind. October began auspiciously and confidence exists that a new set of records will be hung up during the month. Top lambs have never before sold at \$9.25 per cwt. at the inception of October. Last year \$8.20 was the top, two years ago \$7.65 stopped everything and in 1912 the summit of the market was \$6.40. In 1906 and 1907 an \$8.00 top was made in October, but 1901 recorded \$5.25 as the high spot for the month and back in 1895 fat lambs stopped at \$4.85 in October.

A daily demonstration is being made of the fact that although ewes and wethers are scarce, the country can get along with little dressed mutton. The limit on sheep recently has been \$6.25 per cwt., but in the early nineties \$4.24 was a good price for wethers and thousands sold at \$3.75@4.00 during October. In 1896 the top on western sheep at that period was \$3.50 and \$3.00 took many.

Killers have had an awakening and

realize that neither cheap sheep or lambs are possible. Wool, slats and by-products are carrying their share of the load, but according to custom killers put most of the burden on the mutton. That winter prices will rule high is a certainty and the altitude of the market will depend largely on the ability of the consumer to go the pace. In the finality of the transaction, he must settle, otherwise stagnancy would ensue and the fact that packers buy greedily on somewhat spectacular advances shows that they are able to sell product even at prices that look prohibitive. Under present conditions a dollar buys a roast of microscopic proportions and no capacious skillet is needed to care for 50 cents worth of chops.

J. E. P.

TO SELL OR NOT TO SELL.

An Idaho woolgrower asks us what his lambs must bring in Chicago with an 86 cent rate to equal 6½ cents on the range. We have many times obtained the exact cost of marketing Idaho lambs and find them about as follows: Assuming that these lambs average 70 pounds in Chicago, then the freight on each lamb would be 98 cents because it is impossible to load the minimum weight required. From central Idaho four feeds would be required, which would cost 6½ cents. The loss of lambs en route would be around one per cent amounting to 4 cents per lamb. Commission would be 5 cents and yardage 5 cents. The amount of shrinkage varies, but it would be around 5 pounds, which at 6½ cents amounts to 32½ cents. The wages and expenses of the attendant in charge of the shipment would amount to about 3 cents per head. This gives the total expense of marketing as \$1.44 per head or \$2.04 per hundred. Therefore, if lambs brought 6½ cents at the loading station in Idaho, they would have to bring approximately \$8.54 on the Chicago market to net that much.

When you are in Salt Lake City, visit the office of the National Wool Growers' Association.

HAMPSHIRE RAMS



SOME OF OUR YEARLING HAMPSHIRE

We offer a large number of **Registered and Purebred Hampshire Rams**, both lambs and yearlings. These rams are sired by rams imported from the Stevens and Cole flocks of England. Our rams have been bred and raised on the range at an altitude of 6000 feet. They are hardy and ready for hard work.

We will meet parties at Paris, Idaho and take them to our ranch. Paris is near Mountpelier, Idaho.

Address J. NEBEKER & SON, Laketown, Utah



HAMPSHIRE RAM LAMBS IMPORTED FOR WOOD LIVE STOCK COMPANY

RAMS FOR SALE!

Have sold all our **YEARLING HAMPSHIRE RAMS**. Can still supply **HAMPSHIRE RAM LAMBS** fit for service in December, or last of November.

Can still sell about 200 **RAMBOUILLET-LINCOLN CROSS-BRED YEARLING RAMS**. These are the sheep if you intend to keep any ewe lambs next year.

All surplus ewes sold except aged stuff for feeders and shed lambers.

Can still sell **HAMPSHIRE EWES**, either registered or pure-breds.

Full particulars if interested by writing to

WOOD LIVE STOCK COMPANY, Ltd.

SPENCER, IDAHO

F. J. HAGENBARTH, President

H. C. WOOD, Manager

JNO. W. HART, Gen. Supt.

WANTED Hampshire and Cotswold RAMS

Give full particulars

Arthur A. Callister
McIntyre Building Salt Lake City, Utah

Every sheepman can afford to pay
this Association \$5.00.

BUCKS FOR SALE

250 Yearling HAMPSHIRE Bucks, and 225
Yearling RAMBOUILLET Bucks of the
Rugged Mutton type None better for range
use. All raised and grazed at altitude from
7,000 to 11,000 feet. Address.

JAMES A. KELLY, Del Norte, Colo.



Leading Implement and Hardware Dealers

WOOL GROWERS SUPPLIES

At 50 Places in Utah and Idaho

Messrs. HICKMAN & SCRUBY, Court Lodge, Egerton, Kent,
England

Export Pedigree Livestock

OF ALL DESCRIPTIONS
Specialty made of show herds, show flocks,
show horses for the Panama Exposition.

Livestock is booming in North America,
there is nothing to hinder importations
required for exports from England,
and the extra cost of insurance,
freight, etc., is too small to make any
difference.

Send for full particulars at once, if
in a hurry, enquire by week end cabled
letter. Americans ought to be importing
bulls and rams by hundreds and we
want to get busy.

RANGE SEASON

CLOSING EARLY

A somewhat radical revolution has occurred in range sheep trade this year. Early lambs began running freely in July and the movement diminished rapidly in September. No glut occurred during the latter month and the worst break of the season occurred in July when packers seriously entertained the idea that an old-fashioned run of westerns was on the horizon. They misconstrued the free July movement as indicative of plenitude, but September undeceived them. Packingtown was unconscious of a trade evolution of which practically everybody else identified with the trade was cognizant.

All season buyers have been anxiously making inquiry as to when the big run from Montana was due. So accustomed had they been to greeting it with bear raids that continuance was regarded as inevitable. But Montana did not respond and the end of September found fat lambs from that state on a \$9.00 per cwt. basis. The Idaho run dwindled to a mere aggregation of feeders early in September, the result being the highest set of prices in trade history at that period.

The range season of 1915 has been an awakening to killers. They now realize that liquidation of the last half decade has actually created a supply deficiency and that while it is still as large a country as ever it is not producing as much wool and mutton as in the halcyon days of the industry. Even Packingtown awakes to a realization of conditions finally and a nine-month run of 7,519,000 sheep and lambs at

six western markets this year against 9,252,000 in 1914, 9,189,000 in 1913, and 9,124,000 in 1912, ought to be convincing.

Idaho lambs that usually do not reach eastern markets until October came a month ahead of time this year, and they came good indicating breeding improvement and good sustenance on the range. Strange to say, there was no lack of evidence that the process of liquidation has not entirely ceased as many final shipments were made by men who in the past have been conspicuous in the business. Various reasons were assigned, one being that it is bad policy not to take high prices.

A large proportion of the range movement this year was handled by speculators and as a rule they made money, profits running as high as \$1.00 per head. On the July slump a few shipments showed losses, but most of the time the books balanced on the right side and use of red ink was unnecessary.

Scarcity of wethers was phenomenal. Evidently the West is out for the sheep game. Yearlings were also few due to the close manner in which the 1914 lamb crop was garnered. Making wethers is not a sound economic proposition generally speaking.

Fewer yearling and aged breeding ewes were carried by the 1915 range movement than at any period in many years. "Blackface" lambs went to the shambles, but "whitefaces" were held to recuperate breeding flocks. The proportion of female stuff was small and eastern breeders who were clamorous for ewes did not get one where a score could have been used.

In a sense the range season of 1915 was educational. It demonstrated that revolutionary changes are in progress. This evolution is to a large extent economical. Curtailment of winter range is a factor the grower must reckon with and hereafter close herding on a larger scale during the winter will be imperative. The early dropped lamb will be a permanent factor in the trade.

As predicted the 1915 range run was deficient in feeders. The western fin-

Oregon Sheep Ranch For Sale!

Carries 6,000 sheep on pasture the year round. Owing to the topography of the country, mountain and valley, with altitudes ranging from 1,500 feet to 8,000 feet, the Federal government found this the only region in the U. S. where summer and winter range are found combined in one tract. Ranch has paid not less than 10 per cent annually on \$40,000 land value for last ten years.

Terms: One-fourth cash on ranch, sheep cash at market price.

Address NATIONAL WOOL GROWER, Salt Lake City, Utah

isher took his toll early, packers cut deeper into the crop than usual and the cornbelt or farmer feeder got the short end. At Omaha there was a constant clamor for thin stock regardless of cost and finishers would have bought themselves into financial trouble had the necessary sheep and lambs been available. J. E. P.

COME ON.

To the woolgrowers of the nation,
Support this worthy cause.
For it is our own creation,
We should greet it with applause.

Our interests they are mutual,
Then why not join the ranks?
It only costs a five per,
Consult your local banks.

In unity there is always strength,
Both in body and in mind.
So come in with your five per
And do not be behind.

We get the experience of others,
At a very little cost;
We give our experience to others,
These facts are never lost.

So come on every one of you,
And do your level best.
Tell us all your troubles,
And Mac will do the rest.

—J. S. Houtz, Jr.,
Henry, Idaho.

SMALL LOSS FROM COYOTES.

Ordinarily our loss of lambs in past years has ranged from 10 to 12 per cent. Last year we took up the campaign to destroy the coyote and killed five old horses, poisoned them well and put them out as bait. We killed many coyotes, and this year our loss of lambs was only $5\frac{1}{2}$ per cent. I am sure that the poison work saved us a great deal of money and there does not seem to be half the coyotes in our section that there were before we started poisoning. F. C. DIXON, Utah.

Most of the best sheep breeders advertise in the National Wool Grower.

When writing to advertisers please mention the National Wool Grower.

Lincolns 1915 Cotswolds

150 purebred LINCOLN and COTSWOLD yearling rams. 150 LINCOLN ram lambs. 150 COTSWOLD rams lambs. Also one car of choice young ewes.

R. S. ROBSON & SON
DENFIELD, ONTARIO, CANADA

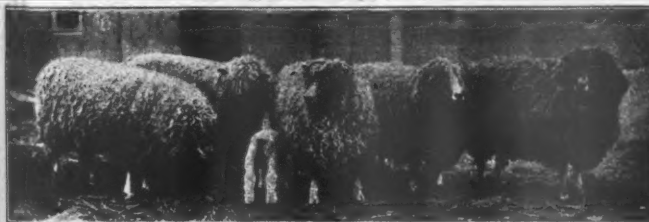


A band of 1000 purebred Lincoln and Cotswold ewes. Bred from the best stock to be found in United States and Canada. Owned by Austin Bros., Salt Lake City, Utah

**Rams
for
Sale**

EXCELSIOR STOCK FARM

J. R. ALLEN & BROS.
DRAPER, UTAH



The World's greatest flock of Cotswolds consisting of 3000 registered breeding ewes of best breeding and highest merit. The best blood imported from England for past twenty years has been added to this flock.

They winter 4,000 and summer 10,000 feet above sea level. They are raised on the range under the most favorable conditions known conducive to perfect health. No stomach or lung worms so prevalent in eastern bred sheep. For flock headers we can furnish rams that cannot be excelled and we think superior to best ram brought to this country from England. We are offering 1,500 Yearling Rams, 1,500 Ram Lambs, a few cars of Breeding Ewes and Ewe Lambs. Come and see us and these sheep—you are always welcome.



Many of the best Hampshires produced in America and England including the leading prize winners have been added to our flock.

SCENT FOR BAIT.

It has been found that the use of fetid scents is very valuable in attracting coyotes to poisonous bait or to traps. Below we give the directions for making this fetid bait as recommended by the United States Biological Survey and many old hunters.

"Place a half-pound of raw beef in a wide-mouthed bottle and let it stand in a warm place, but not in the sun, for two to six weeks, or until it is thoroughly decayed and the odor has become as offensive as possible. When decomposition has reached the proper stage, add a quart of sperm oil or any liquid animal oil. Lard oil may be used, but prairie dog oil is better. Then add one ounce of pulverized asafetida and one ounce of tincture of Siberian musk or Tonquin musk. If this cannot be secured, use in its place one ounce of dry, pulverized castoreum (beaver castor) or one ounce of the common musk sold as perfumery. Mix well and bottle securely until used.

"After setting the traps, apply the

scent with stick or straw or by pouring from the bottle to the grass, weeds or ground on the side of the trap opposite that from which the wolf would naturally approach. Never put the scent on the trap, as the first impulse of the wolf after sniffing the scent is to roll on it."

Salt Lake druggists give us the following prices on these ingredients: Sperm oil, 70 cents per quart; powdered asafetida, 20 cents per ounce; tincture of Siberian musk, \$1.75 per ounce. If woolgrowers cannot obtain these ingredients at their local store, we can have them sent from Salt Lake City. Let us devote December and January to coyote destruction.

FEEDERS SCARCE.

The scramble for feeders of all kinds has been exciting. It is estimated that speculators secured 75 per cent of the Montana crop which is being distributed over a large area. Chicago commission men have been in the business to a considerable extent, oth-

erwise their season's earnings would have been small. Indiana has been in receipt of a heavy movement of Montana feeders through the St. Paul gateway and railroads have made a demonstration of the value of this traffic by giving direct 36-hour runs from St. Paul to Indianapolis. It merely shows that when traffic shows signs of diminution the carriers court it, but when shippers are numerous, they get scant consideration.

J. E. P.

SHEEP PRICES.

The Chicago packers' wholesale prices on mutton and lamb on September 25 were being quoted at the following:

Wholesale prices on dressed lambs: cauldressed lambs 13 cents; round dressed lambs 15 cents; medium sheep 11 cents; good sheep 12½ cents.

Woolgrowers should not forget the Sheep Show at San Francisco next month.



Seventeen Yearling Shropshire Rams purchased by us of Arthur Broughton & Sons, Albany, Wisconsin. A graduation to our Stud Flock because they are Mutton from the ground up, the Early Maturing Kind, and also Fourteen Pound Shearers, as Yearlings, of Splendid Wool.

We can supply you with choice Shropshire, Oxford and Cotswold Ram Lambs. Our lambs were dropped in March. They are range raised. When weaned we place them on excellent pasture with grain feed also, which insures fat and hardiness, a condition necessary for good results, and we guarantee satisfaction.

Knollin & Finch,

Soda Springs, Idaho

OR

Knollin & Myrup,

Howe, Idaho

A. J. Knollin, South Omaha, Neb.

NO HERDING NEEDED.

You have asked me two or three times to tell you about handling sheep in this section without herders. Here in southwestern Oregon all the land has more or less timber on it, some of which is in private hands, but most of it is owned by the Southern Pacific Railroad or large timber companies. Most of these timber lands contain some grass that makes good sheep feed, and the farmers living in the vicinity aim to use this up. We have no large sheepmen here, but a few of them own as many as 500 head. These sheep are turned loose to roam at will. They are all well branded and marked. At shearing time they are rounded up like cattle and shorn, each man getting his own wool, and branding his lambs. Again they are rounded up when the lambs are ready to ship. When round-up is over, many owners take their flocks home and turn them in pastures, but as the fences are very poor, they are soon in the timber again. I have seen sheep gathered at the round-up that have not been shorn for a long time.

In this country we have some destructive wild animals. Many mountain lions, a few bear and an occasional coyote that has drifted across the mountains from Eastern Oregon. We lose a few sheep from these animals, but not so many as the rangeman would think.

Our sheep here are mostly grade Cotswolds or Lincolns but here and there we have a few Merinos.

E. SILVERWOOD,
Western Oregon.

FEED THE RAMS.

Here in Oregon we have been getting larger lamb crops for the last two or three years than was usually the case. Some attribute this to better seasons, but I am inclined to think it is due to the fact that our rams are given more care than heretofore. It is now the custom with most outfits to start graining their rams at least thirty days before using them. After the rams are

turned with the ewes, we take them out at night and give them a good feed of grain, and some feed alfalfa hay in addition. In this way the rams are kept in good condition, which results in a bigger crop of stronger lambs. The rams are not hard to get out of the band after they have been fed a few times as they crowd over to get next the feed pen.

A few men here use half their rams in the band at night and put the other half in in the day time. Others use part of their rams for a few days, then take them out and put in fresh ones for three days, while the others are resting up. My judgment is that if sheepmen would simply take their rams out at night and feed them about a pound of barley or corn, the lambing returns would more than pay the expense.

C. X. JENES, Oregon.

**SHEEPMEN ARE QUITTING
NORTHERN MONTANA**

Replying to your letter, I would state that the influx of settlers into this section of Montana has driven nearly all the sheepmen out of business. We have no Forest Reserve near our range open, and, therefore, there is only one sheepman within twenty miles of this point.

I notice by the last National Wool Grower that you have not set the date for the next annual convention. Allow me to suggest December 15th as a good date. I have never attended a meeting of the Association, but this date would come nearer suiting me than any other.

V. F. BLANKENBAKER,
Montana.

ANOTHER NEW MEMBER.

I have got a new member to join

the National Association, and please find enclosed my check for \$5.00. Please send the National Wool Grower to Garner Bros.

THOS. E. RICKS, Idaho.

Rambouillets**Rams
Ewes**

We have for sale a large number of registered and unregistered Rambouillet Rams. Also a limited number of good ewes.

W. D. CANDLAND

Mt. Pleasant,

Utah

WOOL

MUTTON

RAMBOUILLETS

My RAMBOUILLETS are big and WELL COVERED with dense fleeces. I am breeding Rambouillets suited to give best returns on the range. Write me for prices on REGISTERED STUD RAMS or on RAMS FOR RANGE USE. Will sell in lots from one to a carload.

R. A. JACKSON,
DAYTON, WASHINGTON



Salt Lake City, Utah

**M. K. PARSONS & COMPANY
LIVE STOCK**

1023 Kearns Building

Phone Wasatch 412

SALT LAKE CITY, UTAH

RAMBOUILLETS!

We offer 150 Purebred Rambouillet Yearling Rams. These are big smooth hardy rams.

Craner & Goodman,
Corinne, Utah

Rambouillets



Of the type and quality demanded by the best breeders in America and foreign countries. These leading flocks have rams of our breeding in use. Rams of size, form, and long heavy fleeces, as good as can be found, now in offer.

A few very choice Standard DELAINES.

We are lifetime breeders of the best MERINO sheep required by the markets of the times. Those who appreciate the value of quality and breeding are cordially invited to inspect our flocks. For any information address either

ROSCOE WOOD

DOUGLAS, WYOMING

or **A. A. WOOD & SON**
SALINE, MICHIGAN

PUREBRED RAMBOUILLET FLOCK FOR SALE

I am offering for sale my entire flock of Purebred Rambouillet sheep. The flock consists of 1400 Rambouillet ewes, 500 head of ram lambs and 500 head of ewe lambs. One-half of these are registered and all are purebred. They are extra large, heavy boned and heavy woolled. The foundation ewes of this flock cost me \$80.00 per head and my stud rams are imported from the best American flocks. I think this is one of the best flocks in the West and I invite inspection.

J. K. MADSEN, Mt. Pleasant, Utah

DIFFERENCE IN WEIGHT BETWEEN RAW AND CLEAN WOOL.

The Bureau of Standards, Department of Commerce, has just issued a technologic paper on the difference in weight between raw and clean wool. This publication gives the results of an investigation of the loss in weight of raw wool when it is scoured or cleaned; in other words, the quantity of clean wool from the original raw wool. The percentage yield of clean wool regulates to a large extent the price to be paid for the raw wool. The wool manufacturer who purchases the raw wool should know the shrinkage to be expected and the quantity of clean wool. Raw wool may contain from 15 to 80 per cent of grease and dirt according to the breed of the sheep from which it is shorn, the kind of food upon which the sheep has lived, character of the country with reference to grass, sand, stones, and many other causes.

The scope of the investigation was (1) to obtain some definite knowledge as to the shrinkage of some of the foreign wools imported into this country; (2) to ascertain the shrinkage variations in two samplings of the same fleece; and (3) the difference in shrinkage between two fleeces of the same breed of sheep which were grown in the same section of country. Forty-nine fleeces of Australian and New Zealand wools were employed in the experiments, the results showing the yield of clean wool to be from 19.5 to 54 per cent according to the breed of sheep. The tests are carefully explained and tables show the results in a comprehensive manner.

Copies of this pamphlet, Technologic Paper No. 57, will be mailed to any interested person upon request to the Bureau of Standards, Washington, D. C.

GROWERS LOST MONEY.

Many western breeders made the mistake of contracting lambs to specu-

lators on the basis of last year's market, and it proved to be a mistake. Values were high in 1914 and to some it looked like a cinch to close deals on the same basis. But the speculator reckoned with a diminished output and results show that he was wearing his thinking cap. The advance guard of one band of western lambs averaged around \$9.00 per cwt. in September against \$7.70 for the whole season last year. Practically all the good lambs bought by speculators were marketed at profits ranging from 50 cents to \$1.00 per head. Many growers have been in much the same condition as packers during the past two years. They overestimated the crop and underestimated consumptive demand.

J. E. P.

A NOXIOUS GRAZING LAW.

Way back in territorial days the legislature of the Territory of Idaho passed a law which provides that sheep could not be grazed on land previously or usually occupied by cattle without the consent of the owner of the cattle that used the particular range. This old law has remained a dead letter, and in fact was not known to be in existence until last winter, someone dug it up while the legislature was in session. If this law could be enforced or is constitutional it would mean that one-third of the sheep of Idaho would have to be disposed of and that very quickly. Since the law was discovered, the Idaho Woolgrowers' Association has been very active in placing test cases before the Supreme Court of Idaho so that the validity of the act may be tested. Two cases are now pending before the court, in which sheepmen have been arrested for trespassing upon ranges used by cattle. In these cases the lower court found once in favor of the sheepmen and in the other case against the sheepmen. The Idaho woolgrowers immediately appealed the case to the Supreme Court of Idaho, and it has now been argued and a decision is looked for early in January.

Get us a new subscriber.

BAD RAILROAD SERVICE.

Colin Campbell purchased some rams at Mt. Pleasant, Utah, a point 102 miles south of Salt Lake. These rams were loaded at Mt. Pleasant about 6 p. m. on September 16 and arrived in Salt Lake that night. The Denver & Rio Grande, the road on which they were loaded, advised Mr. Campbell that the rams would be delivered at the Stock Yards at 10 a. m. He went to the yards to meet them, and after waiting until 11:30, was advised his car would not be switched to the Stock Yards until 1:30 p. m. At the appointed time he went to the yards again, but his car was not delivered there until after 3 p. m. All this time the rams were being held in the car in the Salt Lake Freight Yards waiting to be switched to the Stock Yards. By this delay the rams were injured, and Mr. Campbell was delayed one day longer than necessary.

Here we have a case where the Denver & Rio Grande allow a car of rams to lie in the Freight Yard for fourteen hours before delivering it to the Stock Yards, where it could be unloaded. Such service is rotten, and would not be tolerated in any state but Utah. The Denver & Rio Grande kicks about the claims filed for damage to livestock, but as long as this kind of service obtains, they may well look for claims. This is not the first complaint of bad service to stock shipments on the Denver & Rio Grande that we have had, but in this instance

the writer is familiar with all the details and knows there was no excuse for it except an utter disregard for the welfare of the shipper.

IOWA GETS FEEDERS.

Seventy-five per cent of the feeder movement through Omaha this year has gone to three states, Iowa getting the bulk. Missouri, Nebraska and Illinois have secured some, but Iowa has been the big buyer. The Hawkeye state wanted approximately a million head, but will not get them. It is doubtful if Illinois will secure to exceed 50,000 head or Indiana in excess of that number. Michigan has secured only a few loads and railroads have not been burdened with feeder traffic to Ohio points. The whole feeder movement to territory east of the Mississippi River has been woefully small and as it did not get fairly under way until September, supply gaps must develop between September and December. Packers will miss this season the return of the western stuff that usually goes out in August and comes back off grass to compete with the tail end of the range run and the clean-up of natives.

J. E. P.

SUPPORTS THE NATIONAL WOOL GROWERS' ASSO.

Enclosed please find my check for \$20.00 for the purpose of helping the National Wool Growers' Association in a financial way.

WILFORD DAY, Utah.

**L. U. SHEEP COMPANY
FLOCK RAMS FOR SALE****700 Fine Wool Mutton Merinos**

Inquire for further particulars of

DAVID DICKIE, Dickie, Wyoming**RAMBOUILLETS****Stud Rams Range Rams**

We have for sale 350 Yearling Rambouillet Rams. These rams are large, smooth, well covered with long staple wool, are raised at a high altitude and are very hardy. Our foundation Ewes are from the choicest American flocks.

J. P. VAN HOUTEN CO.

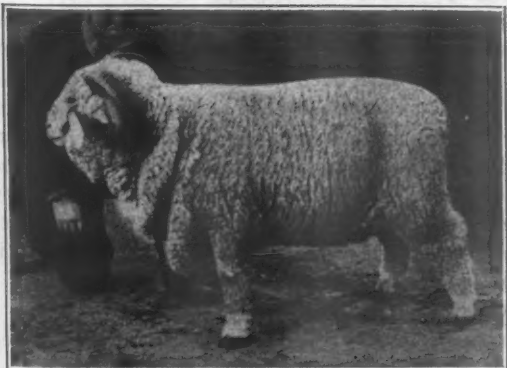
Shoemaker,

New Mexico

RAMBOUILLET RAMS

Some of My Stud Rams.

I offer for this season 400 purebred Rambouillet Yearling Rams, half of which are registered. These are large, smooth, heavy woolled rams. My foundation ewes cost me \$80.00 per head and I am using imported Registered rams from the best American flocks. All I ask you to do is see mine before buying elsewhere. Photographs sent on request.

J. K. MADSEN, Mt. Pleasant, Utah**Mention the National Wool Grower**

In 36 months this ram sheared 78 pounds of wool.

RAMBOUILLETS

This photo shows one of our stud rams just as he came from the range. Our Rambouillets have very dense fleeces and carry lots of mutton. We are offering 1500 yearling rams.

HAMPSHIRE

Every Hampshire on our ranch is a purebred. We offer 200 February Hampshire Ram Lambs.



This is the type of stud ram we have always used.

CUNNINGHAM SHEEP & LAND CO.
PILOT ROCK, OREGON



One of My Stud Rams

CALIFORNIA RAMBOUILLETS

My Rambouillets are large, smooth and well covered with heavy fleeces of long white wool. They are bred in a high, dry country and are very hardy. I have 2000 one and two-year-old rams for this season. If you visit the Fair, call and see my flocks. My prices are reasonable and my rams will suit the range country.

CHAS. A. KIMBLE,
Hanford, Cal.



One of My Stud Ewes

AROUND LAMAR, COLORADO.

Will say that conditions on the range in Colorado are very good except that the settlers are putting quite a few concerns out of business and of course nobody is coming in. Prices for both feeding and breeding stuff are very good and the demand seems to be growing. Most of the wool around here has been sold at around 22 cents.

J. R. STINSON, Colorado.

WHO WANTS A HUNTER.

For several years I have hunted and trapped in Montana and I am now looking for a change of location. Can you advise me where to go? I have four pack horses and 104 traps of different sizes. Also if you have any pointers on scent or any late information regarding the taking of coyotes and cats, I would be very grateful for it. I have had years of experience as a hunter and am 52 years old, and if you can tell me of a good location, I will go there by November.

HARRY HARVEY,
La Monte, Idaho.

LAMBS GOOD THIS YEAR.

Packers paid good prices for western lambs this year, but they got something for the money. Yields were high and quality good. Better breeding was in evidence and owing to improved railroad service, the stuff came sappy. Western lamb quality was in striking contrast to that of natives, few of which were better than decent, while the usual delegation of coarse, bucky stuff showed up. Paucity of natives in September was a stout prop under the market, depriving packers of the club with which they have been accustomed to hammer prices in recent years. With 8,000 to 10,000 natives in the hands of half-a-hundred salesmen, all anxious to clean up and get back to the office, raid making was comparatively easy, while with the bulk of the days offerings in large western bands controlled by a few salesmen, price smashing is difficult. J. E. P.

FEW EASTERN LAMBS.

Another strengthly factor has been a short run of lambs in the East. Markets down that way have been bare most of the time and during September eastern orders made the market. The Wood Live Stock Company's lambs all went east, although packers were eager for a slice of them. Swift was a light buyer all through September for the reason that if that concern had attempted to do its normal volume of business, a 10-cent market would have resulted. The Wood lambs began their season at \$8.80 and sold up to \$9.25 before the close of September. J. E. P.

NEW MEMBER FROM TEXAS.

I enclose check for \$5.00 to pay the dues of a friend and I am satisfied that he will keep up the membership after he reads the National Wool Grower for one year rather than do without it. Please mail the paper to Phillip Thompson and credit him one year's dues. I will see several woolgrowers in a few days and hope to get you some new members.

A. G. ANDERSON,
Texas.

WILL TRY LINCOLNS.

J. R. Allen and Bros. of Draper, Utah, who have achieved fame as breeders of Cotswold sheep, have recently purchased a small flock of registered Lincoln stud sheep. It is the intention of Allen Bros. to take these Lincolns to their farm at Draper and handle them under exactly the same conditions under which their Cotswolds have been handled, and thus to try out the two breeds so as to obtain a comparison of their usefulness. We are very glad to learn that Allen Bros. have decided to give the Lincoln a try, and we have no doubt but that they will prove a very satisfactory sheep in their hands.

Every sheepman can afford to pay this Association \$5.00.

WALNUT HALL FARMS—HAMPSHIRE DOWN SHEEP



SOME OF THE WALNUT HALL STUD RAMS—These rams were machine sheared two months before photo was taken.

30 STUD RAMS AND 220 FLOCK EWES were selected in England last summer and added to this flock at a cost of \$20,000—A BIG INVESTMENT YOU THINK for a few sheep. Do YOU know of any bank or trust company in the United States that will pay you 18 per cent or 20 per cent on your money? No you don't. There are other ways of getting it. The Hampshire Down sheep business is one of them.

Address all communications to— **Robt. S. Blastock, Mgr., Box Y, Walnut Hall Farms, Donerail, Ky.**

"THE ONLY PAINT THAT SCoured PERFECTLY"

Wyoming Experiment Station Bulletin 93

KEMPS

**Kemps Australian Branding Liquid—
Most Practical Brand for the West—
Goes Further Than Crude Brands—
Lasts From Shearing to Shearing—
Scours Out.**

ASK ANY WESTERN MERCHANT

Write for Special Booklet Giving Opinion of Woolen Manufacturers Regarding Linseed Oil and Lamp Black Brand

SOLE MANUFACTURERS

WILLM. COOPER & NEPHEWS, Chicago, Ill.

PROPRIETORS COOPER'S SHEEP DIP.

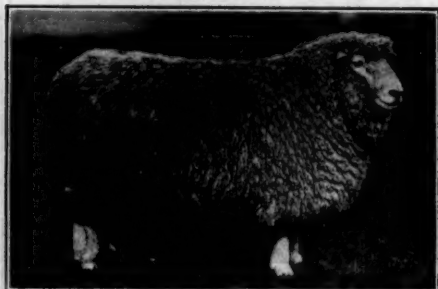
Utah Distributing Agents, **SALT LAKE HARDWARE CO., Salt Lake City**

Washington and Oregon Distributing Agents, **CENTRAL DOOR & LUMBER CO., Portland, Oregon**

Central Texas Distributing Agents, **WOOL GROWERS' CENTRAL STORAGE CO., San Angelo, Texas**

Montana Branch, **C. F. WIGGS, Manager, Billings, Montana**

The New Zealand Romney Marsh Sheep Breeders' Association



Flock Masters of America Attention!

The New Zealand Romney Stud flocks can supply your demand for rams and breeding ewes.

Our Romneys hold the World's Championship

The climate and country make them suitable for all parts of the union.

Flock owners visiting the Panama Exposition should make a point of inspecting the ROMNEY SHEEP from New Zealand.

Correspond with the Association for full particulars. Write today.

ERNEST J. WACKRILL, Secretary
P. O. BOX 40
Feilding, New Zealand

N-Z. Romney Marsh Sheep Breeders' Association (Incorporated by Charter)

FIFTY DOLLARS FOR THE ASSOCIATION

As I realize that the National Wool Growers' Association has done good work for the sheepmen, I am, therefore, sending you my personal check for \$50 as a donation to that organization.

EWEN McLENNAN, Oregon.

PREDICTS A HIGH MARKET.

"Unless something in the nature of the unexpected happens some high spots will develop in the winter lamb market," asserted Frank C. Oxman, of Oregon. "Few early western lambs went on feed and as the western run subsided in September there will be a supply gap at a period when under normal conditions the return movement of fed stuff begins to assert itself and natives are plentiful. The scarcity story has not yet been unfolded.

"Early lambing has come to stay in fact there exists a danger that it may be overdone and a July glut created instead of one at September when late lambing was the rule. The fact must not be overlooked that early lambing is expensive as it means winter feeding, close herding and less wool. Handling a ewe flock for early lambing purposes means an added expense of about \$1.00 per head.

"Western growers have forgotten all about the bad July market and although it created a sore spot temporarily there will be more early lambs than ever next year.

"It has been a bad season for beef on the Pacific Coast, but consumption of lamb has been heavy. Several trains of Idaho lambs have been run in that direction by way of Ogden, but California is reinstating its wool and mutton industry rapidly and will soon have a surplus over local requirements. The bad cattle market on the Coast has given the beef industry a black eye and popularized the ewe. There will be no Mexican cattle taken to California for grazing purposes this year.

"Breeding stock is in demand every-

where. Yearling ewes are not to be had at \$7.00 a head, and ewe lambs have sold straight at \$6.80 per head, which is equal to 9½ cents per pound. Wether lambs have been closely marketed as the time has passed when wether bands can be profitable. Scarcity of money and anxiety to liquidate has resulted in close marketing of everything.

"As to the future of the industry, there can be no doubt. What has happened in Australia cannot be ignored. The worst drought on record has depleted flocks in that country to such an extent that several years will be consumed by the recuperation process and another drouth meanwhile is not improbable. Australia, at this moment, is actually dependent on New Zealand for mutton. The South American wool clip is short and wool wastage, owing to the war, enormous, with no sign of an early change. We need have no fear of mutton imports for several years, even under the most favorable circumstances, and a shortage of wool the world over is certain."

LINCOLNS AND ROMNEYS.

W. Perry of New Zealand is one of the leading breeders of Lincolns and Romneys in that country. Recently in discussing the merits of the two breeds Mr. Peery said: "On wet land cross-Merino sheep get foot rot very badly, and this is one of the points where the Lincoln excels. It is often claimed that the Romney is the premier sheep in this respect, but this is a mistake. Having had the two breeds side by side for some time, I have found the Lincoln wins every time.

In a large part of the North Island of New Zealand, the Lincoln and Romney breeds are crossed alternately, pure sires being used in all cases. The cross gives a good mutton carcass, and a fairly heavy fleece of salable wool. On rough land of fair quality, sheep bred in this way hold their wool, and pay handsomely."

If you want range ewes they are advertised in this issue.

SPECULATORS MADE MONEY.

It has been a great season for the astute speculator, who has been wise in the superlative degree this year. Some of them got a bump in July, during the memorable but short-lived raid, but their wounds were not serious and most of the time they were able to pocket good money, profits ranging from 25 cents to \$1.50 per head on the bulk of the crop. During August and September, they cleaned up some nice money.

J. E. P.

RAMS TO ARIZONA.

Late in September, Colin Campbell, Flagstaff, Arizona, visited Utah and purchased 20 Rambouillet stud rams from John K. Madsen, Mt. Pleasant, Utah, and 40 Rambouillet stud rams from John H. Seely of the same place. Mr. Campbell is raising purebred Rambouilllets and is producing the large, smooth bodied type.

COLLINS BROKERAGE COMPANY

318 Dooly Block Salt Lake City, Utah

Representing largest Oil Mills in California Oklahoma and Texas in the sale of Cotton Seed Meal and Cake. Mills now running.

*Get Our Prices.***Cotton Seed Meal and Cake***Much cheaper than last year,*

Easiest handled, most economical and most highly concentrated stock food known. Can be fed on range or in pen.

Absolutely No Waste.**WRITE OR WIRE AT MY EXPENSE**

JOHN A. STONE,
702 BOSTON BUILDING
SALT LAKE CITY, UTAH

WM. B. HUGHES PRODUCE CO.

Wholesale Dealers in

WHEAT, OATS, BARLEY, CORN and HAY
Car Lots Only.

Office 219 Moose Club Bldg., SALT LAKE CITY, UTAH

**National Wool Grower
Advertisers are Reliable.**

Cottonseed Cake and Meal**THE W. D. BROWN CO.**

Wholesale Grain, Hay, Potatoes

OGDEN, UTAH

*Send for booklet on the use of Cottonseed.***COTTONSEED CAKE**

We are in a position to quote prices from any part of the country and it will be to your interest to figure with us before placing your order.

H. N. WELCH CO.

167 South 3rd East Street

SALT LAKE CITY, UTAH

Cotton Seed Meal and Cake

"EQUITY BRAND"

GIVES RESULTS

Those who feed it know. Quality and weights guaranteed. Write or wire us today for delivered prices. **BUY IT NOW!**

FEEDERS' SUPPLY COMPANY

532-4-6-8 STOCK EXCHANGE BLDG., KANSAS CITY, MO.

COTTONSEED CAKE AND MEAL**PACIFIC COTTON CO.****MEDBERRY COTTON OIL CO.**

CALEXICO, CALIFORNIA

MAKERS OF COTTONSEED CAKE AND MEAL**BALFOUR GUTHRIE & CO.**

SELLING AGENTS

Los Angeles : San Francisco : Portland : Tacoma
Seattle : Spokane : Boise

SEND FOR OUR BOOKLET ON THE USE OF COTTONSEED

Most sheepmen are too busy looking after their own affairs to pay any attention to woolgrowers' associations, but before long most of these associations will go out of business, and then the woolgrowers will not be so busy.

**Courtesy, Helpfulness,
Strength**

National Copper Bank
SALT LAKE CITY

HOTEL UTAH

SALT LAKE CITY

ROOMS WITHOUT BATH
\$1.50 AND \$2.00 PER DAY

WITH BATH \$2.50 AND UP

"The very best of everything at sensible prices"

Mr. Sheepman

The NEW GRAND Hotel

at the corner of Main and South 4th Street, has opened the finest club room in Salt Lake City, for the breeders in inter-mountain country. Call and inspect.

Pool, Billards, Salesrooms and up-to-date luncheon at all hours and most reasonable prices.

CULLEN HOTEL

SALT LAKE CITY, UTAH

FRED J. LEONARD, Mgr.

Headquarters for Sheepmen

More Sheep bought and sold in the Cullen Hotel than in any hotel in the United States.

Rates \$1.00 and up.

WE SCARCITY

CHECKS INDUSTRY

Heretofore when the farming country decided to reinstate the sheep industry in response to remunerative prices, it was merely necessary to make a bid for western stock, and the process was simple. This resulted in farmers alternatively getting into the sheep business on the jumps and getting out on the slumps. But precedent has been violated this year. The East was prepared to go the pace, so far as paying prices was concerned, but had a rude awakening when it discovered that the West was no longer replete with ewes and had nothing to disgorge. Local demand in the range country was so urgent and prices so high that the East was unable to get a "look in."

At the close of the range season unfilled orders for approximately several hundred thousand western ewes are in commission house hands that cannot be filled. Most of them have been pegged far below the market. Ohio, Michigan, Illinois, Wisconsin, Tennessee and Kentucky would have taken an incredible number had the stock been available.

All this means a small crop of native lambs next year and little competition for the western breeder. The run across the Ohio River from Tennessee and Kentucky will be the lightest in many years as few ewes went to that breeding ground. Usually these states are free buyers of native ewes at Chicago, but this season that outlet was hermetically sealed.

Another season of high prices will develop a furore over wool and mut-

ton raising east of the Missouri River, especially if foot and mouth disease is not eradicated. Cattle and hogs are very susceptible to that disease, while the present outbreak has not developed a single case in ovine stock. For at least half a decade to come the West will have a good market for any surplus of yearling ewes it may have for eastern disposal, and it is probable that price will be a secondary consideration.

J. E. P.

CHANGING RANGE CONDITIONS

"The West is still liquidating sheep," said Nathan Ricks of Idaho. "It is not a matter of forest reserve but of spring and fall pasture. The dry farmers are going right up to the timberline, and flockowners are in a position where they cannot take their stock up until late in June and must come out when the first frost impairs feed. This usually occurs about the middle of September after which it is impossible to maintain flocks in the higher altitudes. When frost sets in, the rangeman with sheep up in the mountains is justified in walking the floor nights. At that season alfalfa and stubble fields are not ready and reduction of holdings is the only alternative.

"Growing scarcity of spring and fall range means more early lambs. That evolution is a permanent one. It means economy and equal distribution.

"The western ewe market has practically disappeared except in a few localities for the reason that there are none for sale except at prices that look impossible. In Idaho yearling ewes have realized as much as \$7.50 per head. It is possible to jar female stock loose from owners hands, but only by the expensive process of reaching his price which is always at a lofty altitude.

"Most of the blackface lambs have been marketed in Idaho, but whitefaces are being held. There is a woeful shortage of yearling lambs and the recuperation process will be slow."

Most of the best sheep breeders advertise in the National Wool Grower.

IMPORTANT RECORD OF PASTORAL AFFAIRS

The Hon. A. H. Whittingham's (President) Address at the Annual Meeting of Queensland, Stockman in Addressing the Stockmen of Queensland Australia.

The president said:

"We are meeting today under conditions which I venture to say are without parallel in the history of the pastoral industry of both this and the other Australian States. In the first place the greatest war in history is being waged, embracing in its influence most of those nations who are the largest users of Australian wool and other pastoral products. As a result of this condition of affairs it is not surprising that in the earlier stages of the war the markets for wool, etc., should have been completely disorganized, especially when the question of the safety of the various sea routes was in doubt. Thanks, however, to the control of the seas which Great Britain and her Allies were able to secure, confidence has been restored; and notwithstanding the fact that Germany and Belgium are no longer operating in these markets, and that France is not able to compete to the same extent as formerly, yet Great Britain, America and Japan are apparently able to absorb most of the better classes of wool which the reduced numbers of sheep in Australia have enabled us to supply.

"With regard to the war, I can only hope that the terrible conflict which is now raging on the Continent of Europe may soon be brought to a close in a victory for the Allies. I am afraid, however, that there is a long way to go before such a satisfactory consummation is realized. The events of the past few days in the eastern theatre of the war must have dispelled any illusions which we might have had as to an early termination of the struggle. Surely it must be dawning on all our minds that we are fighting with nations whose far-sightedness and preparedness for this conflict have been the wonder of the world. Even after twelve months' fighting has taken place, I doubt whe-

LIVE STOCK GROWERS AND FEEDERS

We are at all times in the market for Fat Cattle, Sheep and Hogs.

CALL US ON LONG DISTANCE TELEPHONE, OR WIRE US FOR PRICES.

UTAH PACKING & PROVISION CO.

TELEPHONES: Wasatch 1826-1827
Night Telephone, Hyland 1554W

SALT LAKE CITY, UTAH

Don't Trade Off Your Pelts to Peddlers When You Can Ship Them to the

UTAH HIDE & LIVE STOCK COMPANY

SALT LAKE CITY, UTAH

And receive full value for your Hides, Pelts, Furs, or Wool any day in the year.
THE OLDEST AND MOST RELIABLE HOUSE IN THE INTER-MOUNTAIN COUNTRY.

This Space reserved for Montpelier Stock Yards, grazing pastures, and other stock yards operated by Leary & Warren Co., lessees, including the Union Stock Yard of Salt Lake City.

When Writing to Advertisers Mention The National Wool Grower

THE BEST SERVICE

FOR BANKS AND STOCKMEN
HAVING ANY TRANSACTIONS
AT THE CHICAGO LIVE STOCK
MARKET IS SECURED BY AN
ACCOUNT WITH

THE LIVE STOCK EXCHANGE NATIONAL BANK
OF CHICAGO

"THE BANK OF GOOD SERVICE"

CAPITAL \$1,250,000

RESOURCES \$15,000,000

ther we in Australia have realized as fully as we should do that we are in the throes of a life and death struggle for what the citizens of the British Empire hold to be the most precious things on earth, namely, liberty of thought and action. Every evidence that we can get goes to show that Germany's chief objective in this war is the overthrow of the British Empire. We have been told in no uncertain language that what has happened in Belgium will happen to us if the Allies are defeated. We are fighting, therefore, for our homes and all the sacred relationships which that word means to us. We are also fighting for the maintenance of our treaty obligations and the honor of our pledged word. Having put our signatures to any contract, we decline to allow them to be treated as mere "scraps of paper." All honor, I say, to those Australian soldiers who have given up all they possessed, and who have been willing to sacrifice even life itself in order that they might take their part in upholding the cause of the Empire. In the Dardanelles they

have shown that they inherit all those glorious traditions for bravery against overwhelming odds which have made the British Empire what it is. To the friends and relations of those who have lost their lives I tender, on behalf of the members of this Association, our deepest sympathy with them in the loss which they have sustained, and express the hope that they may be comforted by the reflection that their loved ones laid down their lives in a cause which is the highest anyone can sacrifice his life for. To those who have been wounded we offer our highest regard, and trust they will soon be restored to health and strength again. As an association we have a close interest in the war, owing to the fact that Mr. Dawson, secretary of the Pastoral Employers' Association of Central and Northern Queensland, also many of our members and their employees, are either now at the front or are on their way there. I am sure that we trust they will all have a safe and triumphant return.

"I think it is hardly understood by

the general public that for the past twelve or eighteen months the pastoral districts of Queensland have been subject to droughty conditions of more or less intensity. We all know that the southern part of Australia has just passed through one of the most disastrous droughts on record in that part of the Commonwealth. To show the effect of these drought conditions I would draw your attention to the exports of wool from Australia as between the season of 1913-14, and the season of 1914-15. The only State which shows an increase is Western Australia, and even that is only small, namely, 1323 bales. The other States show a decrease in export of 499,572 bales, a decrease of 535,568 bales offered, and of 537,343 bales sold in the Australian markets.

"The interesting portion of these returns to us is that referring to Queensland. This shows that the export of wool decreased by 141,589 bales; that the offerings in the Brisbane market were lower by 112,748 bales, and the quantity sold less by 111,793 bales, yet

ONE DIPPING KILLS ALL TICKS

Prof. Swingle, in Wyoming State Experiment Station Bulletin, entitled "Eradication of the Tick," says:

"I have seen large flocks of sheep practically if not entirely freed from ticks by a yearly dipping in Cooper Powder Dip."

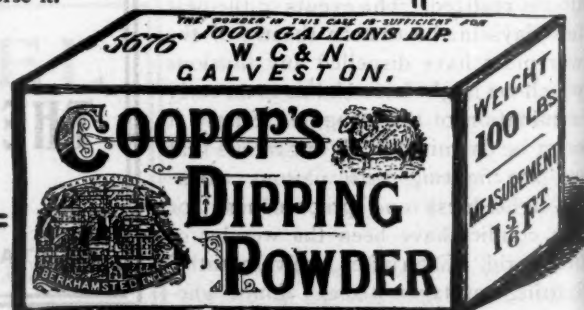
Use Cooper's Powder Dip—one dipping will kill the ticks—and prevent fresh attacks. The protection against fresh attack is worth the cost of the dipping.

Used everywhere.
Most Governments endorse it.

Write for Service Bulletin—"The Sheep Tick"—FREE—to

WILLM. COOPER & NEPHEWS
152-154 West Huron St., CHICAGO, ILL.

Utah Distributing Agents: Salt Lake Hardware Co., Salt Lake City
Montana Branch: C. F. Wiggs, Manager, Billings



the Government stock returns show that the sheep numbers increased by 1,343,319 sheep. The question therefore arises, can this discrepancy be explained on any reasonable grounds? I think it can. First, I find that owing to the droughty conditions, to which I have already referred, the wool has been of a lighter character. It is estimated that this occasioned a loss of at least $1\frac{1}{8}$ pounds of wool per sheep, which gives on the stock numbers of the State a shortage of about 104,000 bales. Then, I also find that the export of mutton and of lamb has increased to the extent of 199,153 carcasses over that of the previous year. I am also inclined to think that the high price of beef, together with the increased population, has led to a greater home consumption of mutton than usual.

"With regard to the cattle branch of the industry, there has been an abnormal demand for beef. This is shown in the returns in the fact that upwards of 436,000 quarters and crops have been exported over the numbers of the previous year. The figures are as follows:

1913-14.....1,342,336.

1914-15.....1,778,358

"The public must not, however, run away with the idea that the whole of the cattle industry of this State has been prosperous, because of this greater demand for meat. In some of the districts the losses of cattle have been very heavy, and these losses have more than counterbalanced any extra return that stockgrowers may have received in consequence of the rise in prices.

Slaughter of Female Cattle.

"During the past few months public attention has been drawn to our meat

ATTENTION WOOL GROWERS!

SALTER BROS. & CO.

Wool Brokers

216 SUMER STREET
BOSTON, MASSACHUSETTS

Solicit wool shipments for direct sale to the mills. Always sold subject to shipper's consent. Liberal advances. Best of references.

Before Disposing of Your
Wool, Phone or Write—

COFFIN & GILLMORE Wool Merchants

PHILADELPHIA, : PA.

Large Handlers of Western Wools

Local Office, D. F. Walker Block,
Salt Lake City, Utah

Phone, Wasatch 4570
J. A. KEARNS, Agent

FARNSWORTH, STEVENSON & CO.

Wool Merchants

Consignments Solicited

116-122 Federal Street

BOSTON

William Farnsworth

R. H. Stevenson, Jr.

E. W. Brigham

T. S. Conant

National Wool Grower advertisers are reliable.

Jeremiah Williams & Co.

WOOL

Commission
Merchants

481 Summer Street, Boston, Mass.

Western Office, McIntyre Building, Salt Lake City, Utah

supplies, owing to the higher prices which have ruled for meat, especially beef. As frequently happens on such occasions all sorts of erroneous statements have been made as to the cause of this. One of the most prominent of these assertions has been that cattle

owners were allowing their female cattle to be slaughtered regardless of the future welfare of the industry or of the interests of the public, and a demand was made that legislation should be introduced by the Commonwealth Parliament in order to protect the interests of the general public of Australia. As a result of this agitation the Federal Government has asked the State Government to have an investigation made into the question. At a conference with the Honorable the Minister for Agriculture and Stock with a number of those interested in the meat industry of the State, I undertook to have the subject looked into, and to submit a report thereon. After careful inquiry I find that as far as this State is concerned there is not any justification for the alarming statements which have been made, because as a matter of fact we have not killed all the female cattle that were available for marketing purposes, as a result of the recognized working practices in the industry which have been in vogue for the past 50 years. The true reason for the increase in prices has been the abnormal demand for war purposes, combined with the drought conditions which have prevailed during the past year. I would, however, point out that the present prices of meat must not be judged by the prices which ruled ten or twenty years ago. We have to remember that the meat trade of Queensland is on an entirely different footing to what it was in those days, owing to the fact that we now have a large export trade, which is providing for the employment of large numbers of men and adding to the wealth production of the State."

IDAHO BUYING FEED.

Idaho sheepmen have prepared for winter by buying large quantities of alfalfa. Thousands of tons have already been purchased by these sheepmen at prices ranging from \$5.00 to \$5.50 per ton in the stack. In some instances where \$5.50 has been paid, the sheepman secured the privilege of grazing his sheep in the alfalfa pastures.

DENVER AS A FEEDER MARKET

Prediction that Denver would develop a feeding lamb market is being made good. Lambs have been shipped from that point this season as far as Ohio and New York, while many shipments have been made to Missouri, Iowa and Kansas feed lots. No reason exists why Denver should not develop in this respect. J. E. P.

UTAH SHEEP BEING DIPPED.


The Utah State Board of Sheep Commissioners issued an order requiring that all the sheep of the State of Utah be dipped once for the eradication of ticks during the year 1915. In discussing this dipping with Enos Bennion, a prominent woolgrower of Vernal, Utah, he made the following statement: "We have completed the dipping of all the sheep around Vernal, and we will now start to dip those at Mack. Most of the sheep around Mack are bought into Utah from the State of Colorado in order to winter. The State of Colorado is paying an inspector to supervise the dipping of these sheep in Utah. There are about 40,000 of these Colorado sheep to dip. They are shipped into Utah each fall from their ranges in Colorado, and in the spring they are shipped back to Colorado again. This is an expensive process as the shipping costs from \$30 to \$45 per car depending on the point at which they are loaded. There is no way to escape this charge for under the conditions that exist shipping is necessary.

"Among the Utah sheep we are finding that some of the bands are entirely free from ticks and none of them is very ticky. I account for this by the fact that we ordinarily shear early with machines, and as the machine cuts close to the skin, it removes most of the live ticks and the eggs as well. We are finding lice in a few of the flocks, principally in the crossbreds. The Merinos do not seem to get lousy. These lice are worse than the ticks as they seem to annoy the sheep decidedly more."

SULPHUR
ALL GRADES—ANY QUANTITY
FROM A BAG TO A CARLOAD
Z. C. M. I. Drug Store

WOOL BAGS
We handle more Wool Bags
than any dealer in the inter-
mountain region.

PAPER TWINE
"Reliance" Paper Fleece Twine has the
greatest possible tensile and tying strength.

 **SHEEP SHEARS**
B. B. A. and 71 or
Trades Union Shears
SOFT ARKANSAS and
LILY WHITE OIL
STONES
SALT LAKE CITY,
UTAH

HEATH & MILLIGAN
**APPROVED
SHEEP
MARKING INK**

THE UNIVERSITY OF WYOMING
AGRICULTURAL COLLEGE
AND EXPERIMENT
STATION

January 30, 1915

Heath & Milligan,
1533 Seward Street,
Chicago, Illinois.

Gentlemen:

We have looked over the sheep which we have branded with your sheep marking ink. In every case so far the paint has stood the weather as well as our standard paint. We have also scoured up a sample of wool which had been saturated with your ink and then dried in the laboratory since October 19. It scoured out perfectly.

Very truly yours,
J. H. Hill
Wool Specialist.

WOOL NOT VERY ACTIVE.

A gentleman, closely identified with the eastern wool situation, recently discussed the matter with a representative of this paper. He said: "Wool is not so active as it was earlier in the season. This, however, is not unusual for September has always been a quiet month in the eastern wool market. Manufacturers buy considerable wool on the range, and this generally satisfies their needs until sometime in November. Hence they are not forced to come into the wool market for a supply. Also the action of Great Britain in allowing a few thousand bales of crossbred wool to be shipped to the United States has had a somewhat disconcerting effect upon our market. While most of those in the trade are satisfied that the importation of this crossbred wool will not permanently affect this market, yet it naturally causes some slowing up in buying in the hope prices will fall.

"I have recently examined a great deal of foreign wool that has been landed in Boston, and while we have imported some very choice Australian wool, yet the bulk of the wool that has come from that country is of a very inferior character. On account of the bad season in Australia the wool is weak and tender as well as very short. Manufacturers that have bought it are greatly disappointed with the results that they are getting. Also we have imported this year for the first time a large quantity of Merino wool from South Africa. This wool is undoubtedly the most inferior stuff that has ever been seen in the American market. We do not raise in this country any wool that is as trashy and common as that which South Africa has sent us this year. Much of it has no greater strength than shoddy, and among all of it that I have seen none is long enough to comb. It is all short, heavy, wasteful wool and will not make a very desirable garment, still it all must be used and displaces just so much other wool.

"Many of the men connected with the wool trade are looking forward to a

CITY COAL COMPANY

PHONE: WABATON 420

KLEAN KOLE

J. W. OTTENSTEIN, Mgr.

277 SOUTH MAIN STREET

SALT LAKE CITY, UTAH

Farmers and Stockgrowers Bank**SALT LAKE CITY, UTAH****Capital \$300,000.00****Surplus and Profits \$20,000.00****National City Bank**

CAPITAL AND SURPLUS

\$300,000

SALT LAKE CITY, UTAH**The McIntyre Building****Salt Lake City, Utah**

Is Headquarters for the
NATIONAL and UTAH WOOL
GROWERS' ASSOCIATIONS

The Most Modern Fire-proof Building in the City**OFFICES FOR RENT****EVERY WOOL GROWER NEEDS
AN ATTRACTIVE LETTER HEAD**

WE PRINT THE

National Wool Grower

THAT IS A SAMPLE OF OUR WORK

We will furnish a nice half tone and get you up an attractive letter head and envelope. It will help your business.

FOR PARTICULARS WRITE THE

CENTURY PRINTING COMPANY

W. G. ROMNEY. J. Q. RYAN.

CENTURY BLDG., 231-3-5 EDISON ST., SALT LAKE

SALT LAKE STAMP CO.

PATENTEES AND MANUFACTURERS



and all kinds of

**STOCK-MARKING DEVICES
RIBBON AND METAL BADGES**PHONE 304 65 W. BROADWAY
SALT LAKE CITY, UTAH**Oldsmobile**

Now that the golden days are here—when Nature is painting her hills and dales with richest Autumn hues—when the air is fresh and bracing and the roads are smooth and hard—now is the time to enjoy to the utmost the glorious pleasure of bowling along with a party of friends in your "merry Oldsmobile."

You, Mr. Busy Man! You, who think that you are tied to your desk with no time to enjoy the pleasures that life holds out to you for the taking—you who have not felt the keen thrill of pleasure when you slide in back of the big polished wheel of your auto and sally forth, new worlds to see, new pleasures to enjoy and a new life to live.

Take time to live, Mr. Busy Man—you'll live a little longer for every day you spend in the open, and whether you think so now or not, your business will benefit by your outings.—and to get every ounce of pleasure that lies in motoring, you should drive the car that runs without a murmur—that responds to the slightest wish of the driver—that "seems to feel the thrill of life," and participates in the joy of the owner.

Your Olds "43" Is Here for You Now.

No delay—no wait. You can select your car and drive home in it.

**Randall-Dodd
Auto Co., Ltd.**

Auto Row, Salt Lake. Wasatch 4560

brisk demand for wool later in the season; and on account of the bad year in Australia it is anticipated that there will be a great shortage in next year's Australian clip. Also it seems inevitable that the wool that we get from Australia next year will be the poorest that country has sent out for many years. In fact many of the best informed men in the wool trade anticipate that but very little combing wool will be forth coming from that source for at least two years. If this proves to be the correct surmise, it means that woolgrowers in this country who produce a clip of good, strong combing wool will be in a position to command any reasonable figure for it.

**AMERICANS TOOK 15,000 BALES
AT LONDON AUCTION**

(Cable to Daily Trade Record.)

London, Oct. 2.—The amended figures of the Colonial Wool Sales, which closed Friday, show that the American purchases amount to 15,000 bales, instead of 4,500, as at first reported.

The final figures for the Continent also have been increased from 14,000 bales to 70,000. The home trade took 124,000 bales.

Sydney reports that good Merinos are in strong demand. Bulky skirting and fine crossbreds are 10 per cent higher.

Further good rains are reported from Victoria; also in the Riverina district of New South Wales. The summer appears to be assured.

Schwartz, Buchanan & Co. state that the total American takings this year, including wools in transit and direct imports, have been 325,000 bales.

MEAT SCARCITY IN GERMANY.

War conditions continue to increase the gravity of the meat situation in Germany. The government some time ago took charge of the regulation of meat sales and distribution, but prices still continue to rise. The American Chamber of Commerce in Berlin reports the following scale of prices there on August 21, compared to the previous week and year:

Aug. 21, Aug. 14, Aug. 22,
1915. 1915. 1914.

—Cents per Pound.—

Beef, loin	33	33.3	25
Beef, breast	29.1	29.1	20.7
Veal, shoulder	34.3	34.3	25.5
Veal, breast	31.6	31.4	23.3
Lamb, shoulder	35.4	35	26.7
Lamb, breast	33.3	33.1	24.4
Pork	45.7	44.7	24.8
Fresh ham	40	39.5	19
Bacon	46.4	46.4	23.5
Smoked ham	64	63.6	41
Butter	48.6	48.3	31.6
Lard	46.9	45.4	20.4



More Automobiles are running through the WINTER since riding comforts have been added.

Ajax Tires represent one of the greatest Winter comforts for any car—they are built for hard service. In fact universal service, all roads, all climates, and for country as well as boulevard service.

Get your non-skid equipment now for Winter driving.

Capital Electric Co.,
21-23 West 1st South Street
SALT LAKE, CITY, UTAH

Pork supplies have been seized by the government and sale are made by regulation. On August 10 the first semi-weekly sale of smoked pork to the civil population of Breslau was opened in the market hall. One ton of this meat was sold in quantities not exceeding 10 pounds to each customer and at a uniform price of 1.50 marks (\$0.357) per pound. This is 25 per cent below regular market price. The sales were to be conducted every Tuesday and Friday until the first supply of 20 tons was exhausted.

Each customer must secure a ticket of admission on the preceding days. Entrance to the market is restricted to one door, and not more than 10 persons are admitted at once. This meat comes from the municipal slaughterings of hogs.

Encouraged by the success of this municipal venture, the city of Breslau will now slaughter 1,500 steers and preserve the meat in the municipal cold-storage plants, reports Consul Harry G. Seltzer. This meat will also be sold in limited quantities and at fixed prices. The city does not expect to profit financially by this transaction, but will fix prices so as to include only the actual cost and the cost of handling and sale.—The Provisioner.

LAST MINUTE CABLE.

(Special Cable to The Commercial Bulletin.)

London, Eng.

The sixth series of auctions in Coleman Street came to a close today (Friday). Throughout the sales good combing Merinos and crossbreds have been firm but other classes have been very irregular.

Generally speaking, average scoured wools and Merinos have been about two cents below the prices in the previous series, while faulties have shown a decline of from four to six cents a pound.

American styled crossbreds have often made two cents above the July

prices. Ordinary top-making wools have been the most reasonable to buy.

America has bought chiefly good medium to fine crossbreds, while Russia has secured the best lines of scoured Merinos.

American purchases at the sale are estimated at 4,000 bales; for the Continent 14,000 bales and for the home trade, 132,000 bales. The withdrawn wools to be carried forward are estimated at 48,000 bales.

We trust that wool growers who have not this year paid their dues will read the letters published in this issue from men who are paying up.

George Mackerrow Bryson ARCHITECT

Telephone
Wasatch 1462

701 Boston Building
Salt Lake City, Utah

ORES

MINERALS

A. E. Custer

ASSAYER AND CHEMIST.

Formerly Chief Chemist and Assayer,
Bingham Smelter, Midvale, Utah.

Also four years with
U. S. Government Assay Office,
Salt Lake City, Utah.

31 Postoffice Place.

SALT LAKE CITY, UTAH.

Phone Wasatch 2041.

Send for free mailing pouches and price list.

Hubbard Investment Co.

BUILDING SITES IN ALL PARTS OF CITY. LOW PRICES. EASY
TERMS. A FEW GREAT BARGAINS IN BUSINESS PROPERTY.

66 West Broadway

Salt Lake City, Utah

LET EARDLEY BROS. DO IT

Everything for Electricity. Auto Accessories. Expert Repairing.

29 W. BROADWAY

100% Service.

SALT LAKE CITY, UTAH

DERN DECORATING CO.

Decorators of Utah State Capital, Newhouse Hotel, Farmers & Stockgrowers Bank and many
other structures and homes. Drapery and Lace Curtain Department finest in the West.

60 Exchange Place

Salt Lake City, Utah

CARTHEY & DUMBECK

Modern Plumbing and House Heating. Supplies for Plumbers.

TELEPHONE WASATCH 92.

SALT LAKE CITY

63 WEST BROADWAY.

THE W. A. BYWATER PLUMBING & HEATING CO.

20 E. So. Temple St., Salt Lake City, Utah

FIRST CLASS PLUMBING AND HEATING OF ALL KINDS.

GIVE US A CHANCE TO FIGURE WITH YOU.

BUYING RANGE LANDS.

Mrs. W. H. Vessey, a large sheep owner in the state of Washington, has recently purchased from the Northern Pacific Railroad fourteen sections of railroad land in the northern part of Yakima County. The price paid for the land was \$1.75 per acre. It is Mrs. Vessey's intention to use this land as sheep range in connection with her other lands. The Northern Pacific Railroad is selling all of its range land in the State of Washington.

American Rambouillet Sheep Breeders Ass'n

Membership Fee \$10. No annual dues. Flock books free to members. Volume XVI ready for delivery and pedigrees now being received for Volume XVII. Over 77,000 sheep on record.

President—R. A. JACKSON,
Dayton, Washington.

Secretary—DWIGHT LINCOLN,
Milford Center, Ohio.

For history of the breed, list of members, rules, blanks, etc., address the Secretary.

American Shropshire Registry Ass'n

Organized 1884. 4750 Stockholders Shares of Stock \$5.00. No Annual Dues. Volume XXIX Opened Oct. 1, 1914. Printed Matter, Blanks, and Information FREE upon Application to the Secretary.

A. J. KNOLLIN, Pres., South Omaha, Neb.

J. M. WADE, Sec'y., LaFayette, Indiana

American Hampshire Sheep Ass'n

Organized in 1889. Membership fee \$5.00. Pedigrees now being received for Vol. XII of the Flock Record. Write the Secretary for information and printed matter. A postal card will bring it. Write today.

F. J. HAGENBARTH, Pres.
Spencer, Idaho.

COMFORT TYLER, Secretary,
310 E. Chicago St., Coldwater, Mich.

BOSTON WOOL MARKET.**Domestic Wool.****Commercial Bulletin.****Ohio and Pennsylvania Fleeces.**

Delaine washed	34@35
XX	32@
Fine unmerchantable	31@32
½ blood combing	33@34
¾ blood combing	36@37
¼ blood combing	35@36
½, ¾, ¼ clothing	30@33
Delaine unwashed	30@
Fine unwashed	26@27
Common and braid	31@32

Michigan and New York Fleeces.

Fine unwashed	23@24
Delaine unwashed	26@27
½ blood unwashed	31@32
¾ blood unwashed	36@36½
¼ blood unwashed	35@35½
½, ¾, ¼ clothing	25@26
Common and braid	31@32

Wisconsin and Missouri.

¼ blood	34@35
½ blood	34@35
¾ blood	30@31
Braid	31@32
Black, burry, seedy cotts	27@29
Georgia	31@32

Kentucky and Similar.

½ blood unwashed	35@
¾ blood unwashed	37@
¼ blood unwashed	36@37
Common and braid	31@32

SCoured BASIS.**Texas.**

Fine 12 months	67@68
Fine 8 months	60@62
Fine fall	55@57

California.

Northern	65@67
Middle county	62@63
Southern	56@58
Fall free	51@53
Fall defective	45@48

Oregon.

Eastern No. 1 staple	70@72
Eastern clothing	67@68
Valley No. 1	59@62
Valley No. 2	54@56
Valley No. 3	52@53

Territory.

Fine staple	72@73
-------------	-------

Fine medium staple	68@70
Fine clothing	67@70
Fine medium clothing	65@
½ blood combing	70@71
¼ blood combing	67@69
¾ blood combing	65@67

GOOD IDAHO LAMBS.

Western lambs have been netting good prices this year. An illustration will suffice. The Nathan Ricks' shipment from Idaho sold at \$9.20 on the Chicago market late in September, netting about \$6.00 per head at home. Eighteen years ago at practically the same season the Ricks' lambs netted \$1.80 per head. Many fat western lambs have netted \$5.00 per head or better.

J. E. P.

ROMNEYS.

On another page of this issue will be found the advertisement of the New Zealand Romney Sheep Breeders' Association. This organization represents all the progressive breeders in New Zealand and is interested in seeing that the Romney is well introduced into the United States. They are anxious to correspond with American sheepmen regarding the merits of the Romney, etc., and will be pleased to give any information that is desired to any sheepman who will write to them.

BREEDING EWES SCARCE.

All over the Cornbelt, the East and the South, there is disappointment over the meager run of breeding ewes during the closing range season. New York, Ohio, and Indiana wanted them by the thousands in the worst way and the number Kentucky and Tennessee would have taken needed five figures for enumeration purposes. But the female stock necessary for recuperating the industry in the East and Middle South was not available, and the lamb crop in the Middle South which has been dwindling for two years past will be even shorter next year which will be to the distinct advantage of early lambs from the West.

J. E. P.